09/713,523

Welcome to STN International! Enter x:
Welcome to STN International! Enter x:x
LOGINID:ssspta1129pxo
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

| | | |
|---|---|---|
| NEWS 1 | | Web Page URLs for STN Seminar Schedule - N. America |
| NEWS 2 | Sep 17 | IMSworld Pharmaceutical Company Directory name change to PHARMASEARCH |
| NEWS 3 | Oct 09 | Korean abstracts now included in Derwent World Patents Index |
| NEWS 4 | Oct 09 | Number of Derwent World Patents Index updates increased |
| NEWS 5 | Oct 15 | Calculated properties now in the REGISTRY/ZREGISTRY File |
| NEWS 6 | Oct 22 | Over 1 million reactions added to CASREACT |
| NEWS 7 | Oct 22 | DGENE GETSIM has been improved |
| NEWS 8 | Oct 29 | AAASD no longer available |
| NEWS 9 | Nov 19 | New Search Capabilities USPATFULL and USPAT2 |
| NEWS 10 | Nov 19 | TOXCENTER(SM) - new toxicology file now available on STN |
| NEWS 11 | Nov 29 | COPPERLIT now available on STN |
| NEWS 12 | Nov 29 | DWPI revisions to NTIS and US Provisional Numbers |
| NEWS 13 | Nov 30 | Files VETU and VETB to have open access |
| NEWS 14 | Dec 10 | WPINDEX/WPIDS/WPIX New and Revised Manual Codes for 2002 |
| NEWS 15 | Dec 10 | DGENE BLAST Homology Search |
| NEWS 16 | Dec 17 | WELDASEARCH now available on STN |
| NEWS 17 | Dec 17 | STANDARDS now available on STN |
| NEWS 18 | Dec 17 | New fields for DPCI |
| NEWS 19 | Dec 19 | CAS Roles modified |
| NEWS 20 | Dec 19 | 1907-1946 data and page images added to CA and CAplus |
| NEWS 21 | Jan 25 | BLAST(R) searching in REGISTRY available in STN on the Web |
| NEWS 22 | Jan 25 | Searching with the P indicator for Preparations |
| NEWS 23 | Jan 29 | FSTA has been reloaded and moves to weekly updates |
| NEWS 24 | Feb 01 | DKILIT now produced by FIZ Karlsruhe and has a new update frequency |
| NEWS 25 | Feb 19 | Access via Tymnet and SprintNet Eliminated Effective 3/31/02 |
| NEWS 26 | Mar 08 | Gene Names now available in BIOSIS |
| NEWS 27 | Mar 22 | TOXLIT no longer available |
| NEWS 28 | Mar 22 | TRCTHERMO no longer available |

| | |
|---|---|
| NEWS EXPRESS | February 1 CURRENT WINDOWS VERSION IS V6.0d, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002 |
| NEWS HOURS | STN Operating Hours Plus Help Desk Availability |
| NEWS INTER | General Internet Information |
| NEWS LOGIN | Welcome Banner and News Items |
| NEWS PHONE | Direct Dial and Telecommunication Network Access to STN |
| NEWS WWW | CAS World Wide Web Site (general information) |

Enter NEWS followed by the item number or name to see news on that specific topic.

* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 14:25:51 ON 23 MAR 2002

=> help hours
HELP FOR 'HOURS' IS NOT AVAILABLE
For information about help messages available in all files, enter "HELP MESSAGES". For information about help messages available for the current file, enter "HELP DIRECTORY". For a list of commands, enter "HELP COMMANDS".

=> help directory

The HOME file is the default login file. It does not contain any searchable or displayable data. The following commands are valid in the HOME file: DELETE, DISPLAY, FILE, HELP, LOGOFF, NEWS, ORDER, SAVE, and SET.

=> file reg

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 0.30 | 0.30 |

FILE 'REGISTRY' ENTERED AT 14:27:06 ON 23 MAR 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.


STRUCTURE FILE UPDATES: 20 MAR 2002 HIGHEST RN 402467-99-6
DICTIONARY FILE UPDATES: 20 MAR 2002 HIGHEST RN 402467-99-6

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

The P indicator for Preparations was not generated for all of the CAS Registry Numbers that were added to the H/Z/CA/CAplus files between 12/27/01 and 1/23/02. Use of the P indicator in online and SDI searches during this period, either directly appended to a CAS Registry Number or by qualifying an L-number with /P, may have yielded incomplete results. As of 1/23/02, the situation has been resolved. Also, note that searches conducted using the PREP role indicator were not affected.

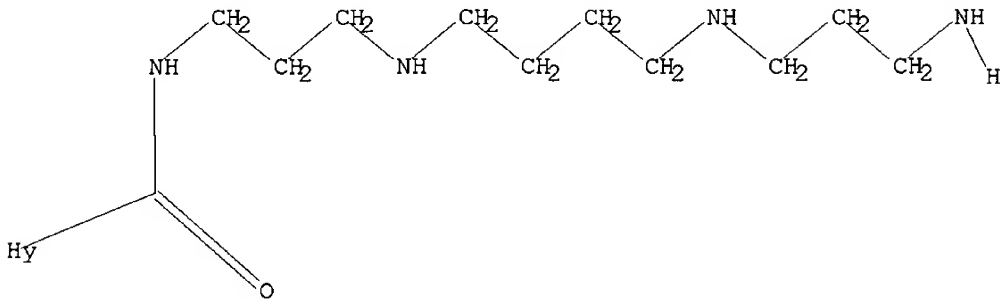
Customers running searches and/or SDIs in the H/Z/CA/CAplus files incorporating CAS Registry Numbers with the P indicator between 12/27/01 and 1/23/02, are encouraged to re-run these strategies. Contact the CAS Help Desk at 1-800-848-6533 in North America or 1-614-447-3698,

worldwide, or send an e-mail to help@cas.org for further assistance or to receive a credit for any duplicate searches.

=>
Uploading 523.str

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR




Structure attributes must be viewed using STN Express query preparation.

=> s l1
SAMPLE SEARCH INITIATED 14:28:59 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 229 TO ITERATE

100.0% PROCESSED 229 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 3673 TO 5487
PROJECTED ANSWERS: 1 TO 80

L2 1 SEA SSS SAM L1

=> search l1
ENTER TYPE OF SEARCH (SSS), CSS, FAMILY, OR EXACT:.
ENTER SCOPE OF SEARCH (SAMPLE), FULL, RANGE, OR SUBSET:full
FULL SEARCH INITIATED 14:29:10 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 4905 TO ITERATE

100.0% PROCESSED 4905 ITERATIONS 37 ANSWERS
SEARCH TIME: 00.00.01

L3 37 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 141.50 141.80

FILE 'CAPLUS' ENTERED AT 14:30:08 ON 23 MAR 2002

FILE COVERS 1907 - 23 Mar 2002 VOL 136 ISS 13
FILE LAST UPDATED: 21 Mar 2002 (20020321/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

The P indicator for Preparations was not generated for all of the CAS Registry Numbers that were added to the CAS files between 12/27/01 and 1/23/02. As of 1/23/02, the situation has been resolved. Searches and/or SDIs in the H/Z/CA/CAplus files incorporating CAS Registry Numbers with the P indicator executed between 12/27/01 and 1/23/02 may be incomplete. See the NEWS message on this topic for more information.

```
=> s l3
L4          48 L3

=> d l4 fbib ab hitstr 1-48

L4   ANSWER 1 OF 48  CAPLUS  COPYRIGHT 2002 ACS
AN   2001:886056  CAPLUS
DN   136:15226
TI   Novel polyamine transport-inhibiting polyamine analogues as therapeutic
     and diagnostic agents
IN   Vermeulin, Nicolaas M. J.; O'day, Christine L.; Webb, Heather K.; Burns,
     Mark R.; Bergstrom, Donald E.
PA   Oridigm Corporation, USA
SO   PCT Int. Appl., 102 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.         KIND  DATE          APPLICATION NO.  DATE
     ---------------    ----  --------      ---------------  --------
PI   WO 2001092218      A2    20011206      WO 2001-US17795  20010531
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,
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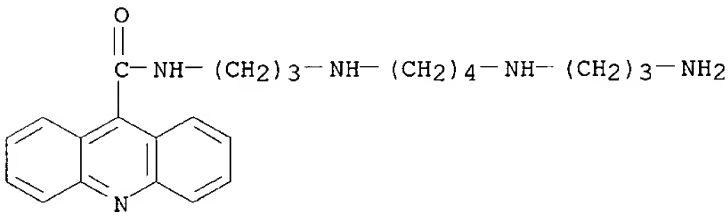
VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
US 2000-584175 A 20000531

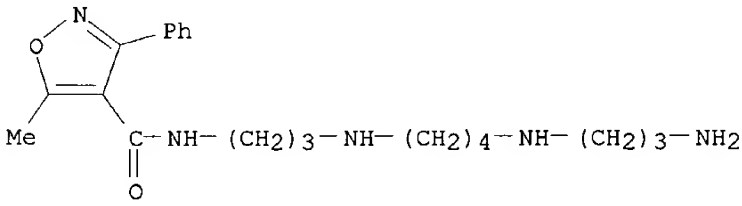
AB Novel "bispolyamine" inhibitor compds. of polyamine transport are disclosed. These compds. are useful pharmaceutical agents for treating diseases where it is desired to inhibit polyamine transport or other polyamine binding proteins, for example cancer and post-angioplasty injury. These compds. display desirable activities both for diagnostic and research assays and therapy. Most of the spermine dimers that have been tested provided very good Ki for transport inhibition with values under 75 nM. ORI 1236 (I) was the most potent inhibitor with a Ki of 22 nM. The results were generally mirrored in the growth inhibition assay. All of the compds. were synergistic with difluoromethylornithine, a polyamine synthesis inhibitor, with IC50 values of 10 .mu.M or less.

IT **181288-33-5 220221-18-1 220221-20-5**
**220221-35-2 220221-36-3 220221-38-5**
**220221-71-6 220221-72-7 330161-95-0**
**330162-00-0 330162-11-3 330162-12-4**
**330162-15-7 330162-16-8 330162-88-4**
**377725-86-5 377726-22-2**
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(novel polyamine transport-inhibiting polyamine analogs as therapeutic and diagnostic agents)

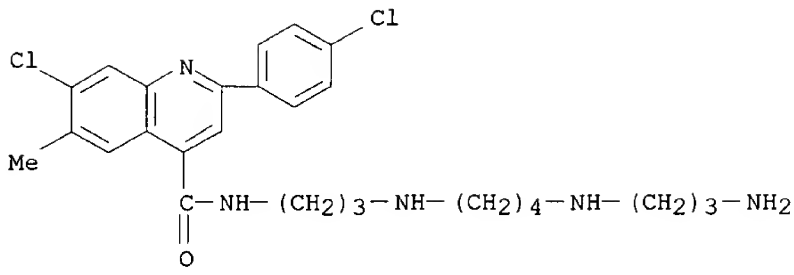
RN 181288-33-5 CAPLUS
CN 9-Acridinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)



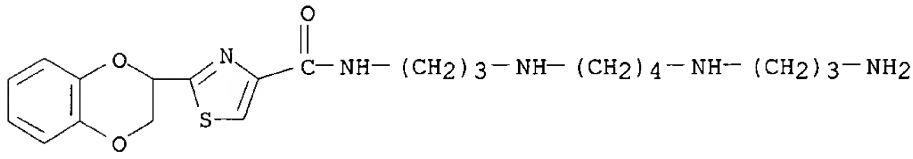
RN 220221-18-1 CAPLUS
CN 4-Isoxazolecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-5-methyl-3-phenyl- (9CI) (CA INDEX NAME)



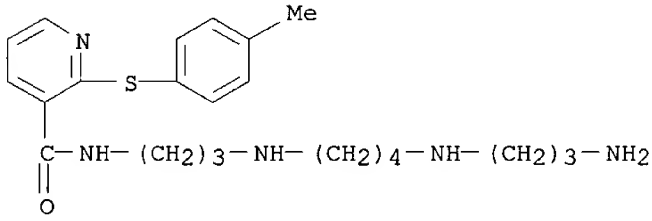
RN 220221-20-5 CAPLUS
CN 4-Quinolinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-7-chloro-2-(4-chlorophenyl)-6-methyl- (9CI) (CA INDEX NAME)



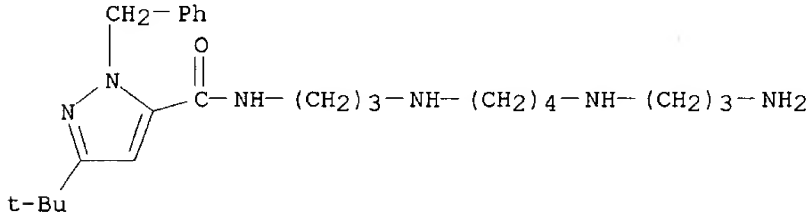
RN 220221-35-2 CAPLUS
CN 4-Thiazolecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-2-(2,3-dihydro-1,4-benzodioxin-2-yl)- (9CI) (CA INDEX NAME)



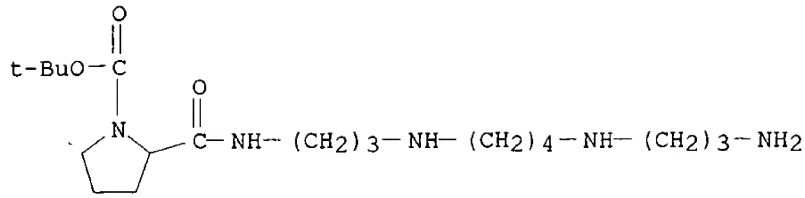
RN 220221-36-3 CAPLUS
CN 3-Pyridinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-2-[(4-methylphenyl)thio]- (9CI) (CA INDEX NAME)



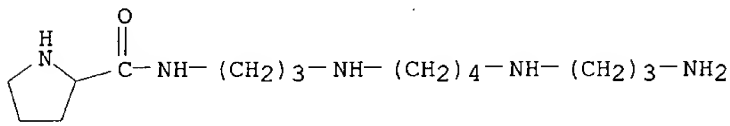
RN 220221-38-5 CAPLUS
CN 1H-Pyrazole-5-carboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-3-(1,1-dimethylethyl)-1-(phenylmethyl)- (9CI) (CA INDEX NAME)



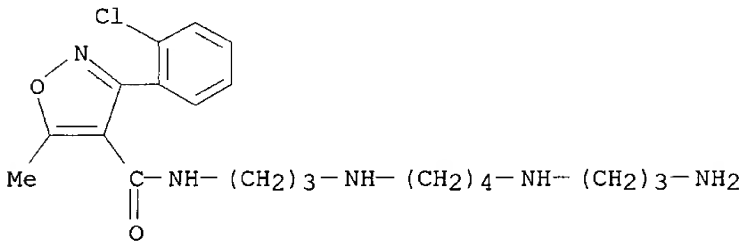
RN 220221-71-6 CAPLUS
CN 1-Pyrrolidinecarboxylic acid, 2-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



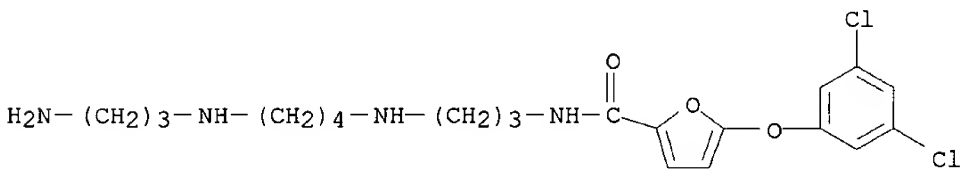
RN 220221-72-7 CAPLUS
CN 2-Pyrrolidinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)



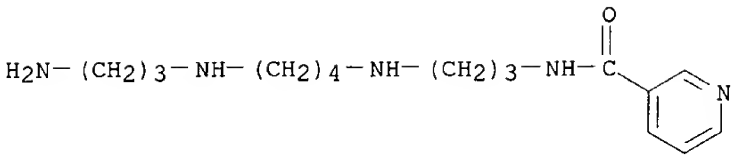
RN 330161-95-0 CAPLUS
CN 4-Isoxazolecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-3-(2-chlorophenyl)-5-methyl- (9CI) (CA INDEX NAME)



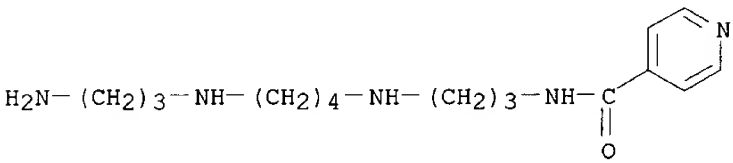
RN 330162-00-0 CAPLUS
CN 2-Furancarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-5-(3,5-dichlorophenoxy)- (9CI) (CA INDEX NAME)



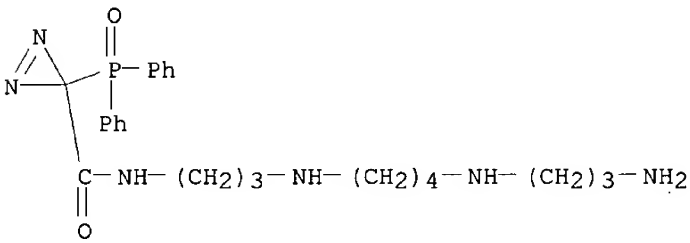
RN 330162-11-3 CAPLUS
CN 3-Pyridinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)



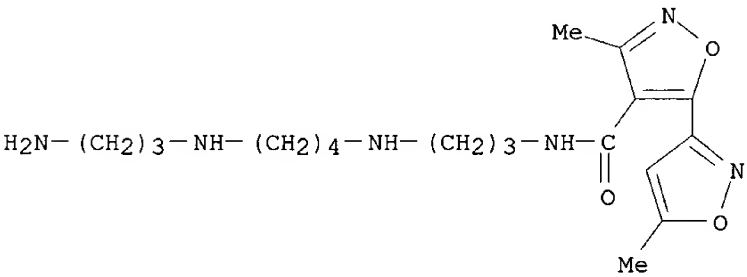
RN 330162-12-4 CAPLUS
CN 4-Pyridinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)



RN 330162-15-7 CAPLUS
CN 3H-Diazirine-3-carboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-3-(diphenylphosphinyl)- (9CI) (CA INDEX NAME)

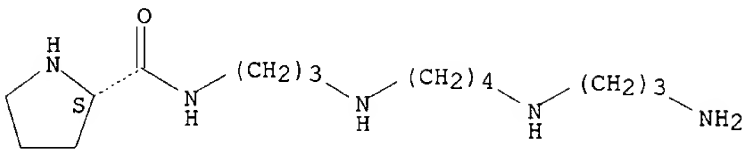


RN 330162-16-8 CAPLUS
CN [3,5'-Biisoxazole]-4'-carboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-3',5-dimethyl- (9CI) (CA INDEX NAME)



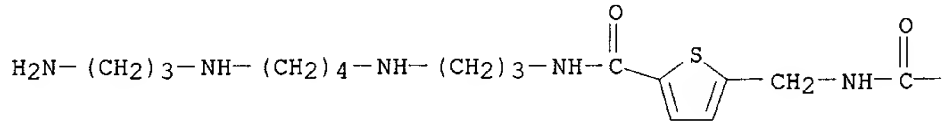
RN 330162-88-4 CAPLUS
CN 2-Pyrrolidinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

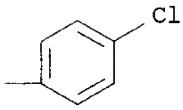


RN 377725-86-5 CAPLUS
CN 2-Thiophenecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-5-[[(4-chlorobenzoyl)amino]methyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

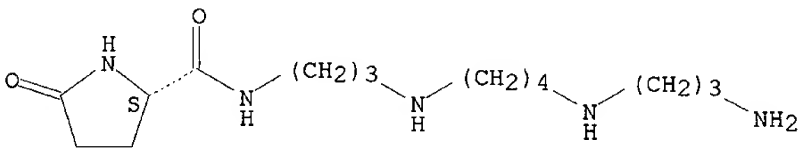


PAGE 1-B



RN 377726-22-2 CAPLUS
CN 2-Pyrrolidinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-5-oxo-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 2 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 2001:806914 CAPLUS
DN 135:317541
TI High-yield fermentation method for producing boanmycin
IN Xu, Hongzhang; Zhang, Rui; Dai, Dunhua; Chen, Ruxian; Shi, Lianying; Lu, Min; Wang, Lifei
PA Medical Biological Technology Inst., Chinese Academy of Sciences, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 12 pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|

PI CN 1303949 A 20010718 CN 1999-111053 19990729

AB Boanmycin (bleomycin A6) is prepd. by fermn. of Streptomyces verticillus in 0.1-1 g L-1 spermine HCl-contg. culture medium. Spermine HCl may be replaced by spermine sulfate or spermine-contg. corn steep liquor. Streptomyces verticillus is preferably S. verticillus var. pingyangensis.

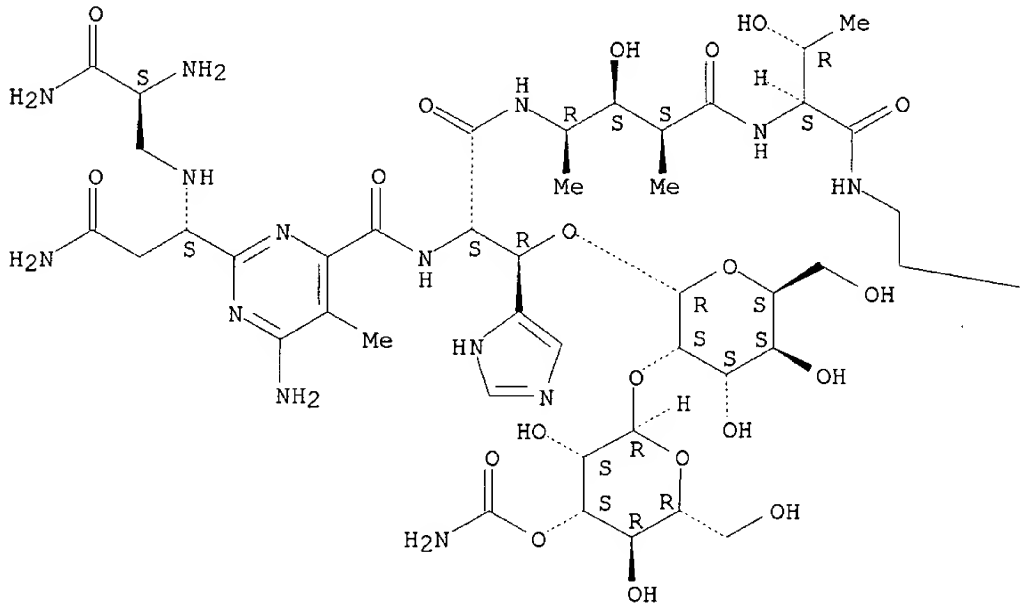
IT **37293-17-7P**, Bleomycin A6
RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(high-yield fermn. method for producing boanmycin)

RN 37293-17-7 CAPLUS

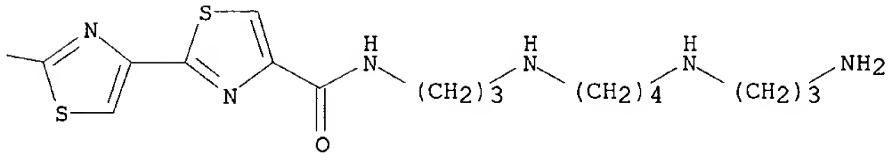
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

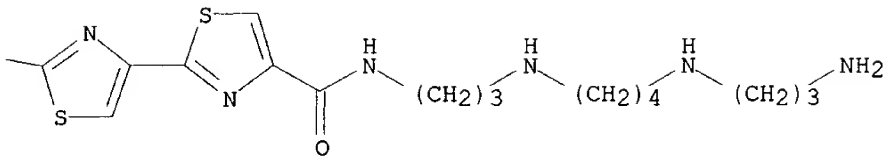
Absolute stereochemistry.

PAGE 1-A



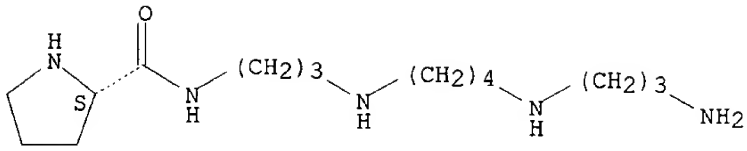
PAGE 1-B





L4 ANSWER 3 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 2001:677296 CAPLUS
DN 136:6310
TI Amino Acid/Spermine Conjugates: Polyamine Amides as Potent Spermidine Uptake Inhibitors
AU Burns, Mark R.; Carlson, C. Lance; Vanderwerf, Scott M.; Ziemer, Josh R.; Weeks, Reitha S.; Cai, Feng; Webb, Heather K.; Graminski, Gerard F.
CS Oridigm Corporation, Seattle, WA, 98103, USA
SO Journal of Medicinal Chemistry (2001), 44(22), 3632-3644
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
AB The authors describe the synthesis and characterization of a series of simple amino acid amides of spermine, some of which potently inhibit the uptake of spermidine into MDA-MB-231 breast cancer cells. The presence of an amide in the functionalized polyamine appeared to add to the affinity for the polyamine transporter. The extensive biol. characterization of an esp. potent analog from this series, spermine lysinamide, H-Lys-NH(CH2)3NH(CH2)4NH(CH2)3NH2 (I), showed that this mol. will be an extremely useful tool for use in polyamine research. It was obsd. that the use of I in combination with DFMO led to a cytostatic growth inhibition of a variety of cancer cells, even when used in the presence of an extracellular source of transportable spermidine. It was furthermore shown that this combination effectively reduced the cellular levels of putrescine and spermidine while not affecting the levels of spermine. These facts together with the nontoxic nature of I make it a novel lead for further anticancer development.
IT **374783-00-3P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of amino acid amides of spermine as potent inhibitors of spermidine uptake by breast cancer cells)
RN 374783-00-3 CAPLUS
CN 2-Pyrrolidinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-, tetrahydrochloride, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●4 HCl

RE.CNT 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

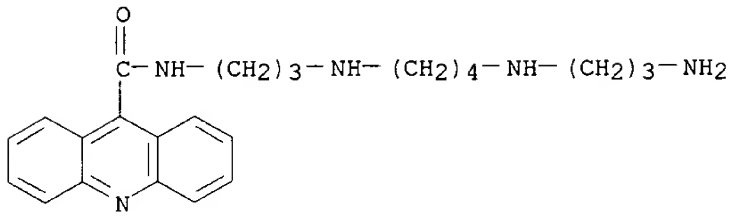
L4 ANSWER 4 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 2001:207925 CAPLUS
DN 134:237682
TI Novel polyamine analogues as therapeutic and diagnostic agents
IN Vermeulin, Nicholaas M. J.; O'Day, Christine L.; Webb, Heather K.; Burns, Mark R.; Bergstrom, Donald E.
PA Oridigm Corporation, USA
SO Eur. Pat. Appl., 140 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI EP 1085011 | A1 | 20010321 | EP 2000-308049 | 20000915 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | | | US 1999-396523 A | 19990915 |
| JP 2001172244 | A2 | 20010626 | JP 2000-282752 | 20000918 |
| | | | US 1999-396523 A | 19990915 |

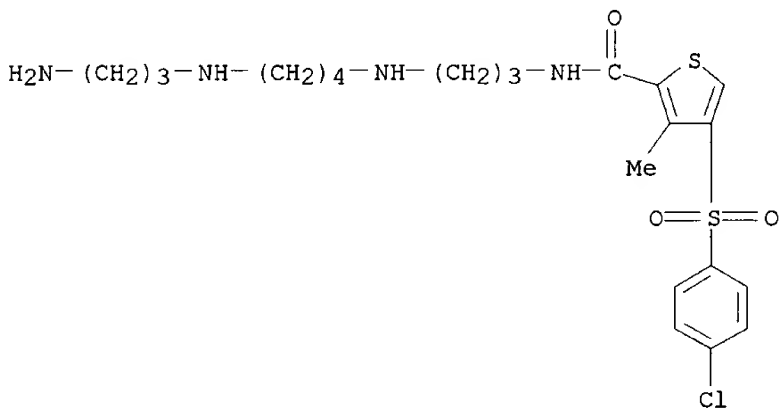
AB Novel inhibitors of polyamine transport having inhibition consts. two orders of magnitude lower than those of known compds. are disclosed. These polyamine analogs are useful pharmaceutical agents for treating disease where it is desired to inhibit polyamine transport or other polyamine binding proteins, for example cancer and post-angioplasty injury. Novel chem. synthetic methods to obtain polyamine analogs are disclosed, including the prodn. of a combinatorial polyamine library. These approaches yield analogs with desirable activities both for diagnostic and research assays and therapy. The assays of the invention are useful for high throughput screening of targets in the discovery of drugs that interact with the polyamine system.

IT **181288-33-5P 220221-14-7P 220221-18-1P**
**220221-20-5P 220221-35-2P 220221-36-3P**
**220221-38-5P 330161-95-0P 330162-00-0P**
**330162-06-6P 330162-07-7P 330162-08-8P**
**330162-11-3P 330162-12-4P 330162-15-7P**
**330162-16-8P 330162-68-0P 330162-88-4P**
**330162-96-4P**
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of polyamines as therapeutic and diagnostic agents)
RN 181288-33-5 CAPLUS

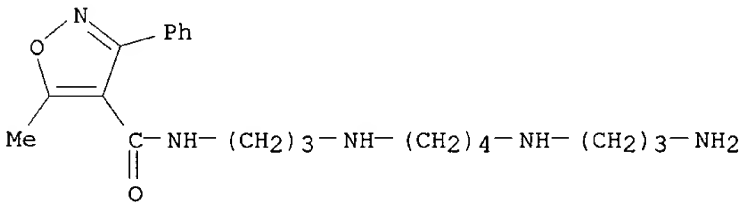
CN 9-Acridinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)



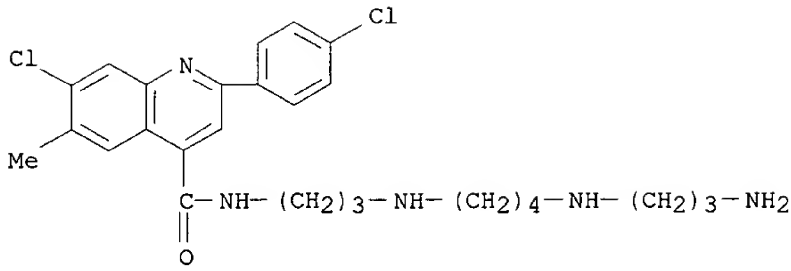
RN 220221-14-7 CAPLUS
CN 2-Thiophenecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-4-[(4-chlorophenyl)sulfonyl]-3-methyl- (9CI) (CA INDEX NAME)



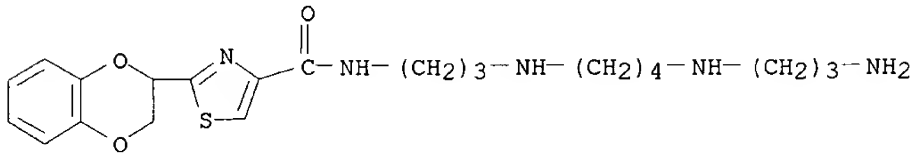
RN 220221-18-1 CAPLUS
CN 4-Isoxazolecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-5-methyl-3-phenyl- (9CI) (CA INDEX NAME)



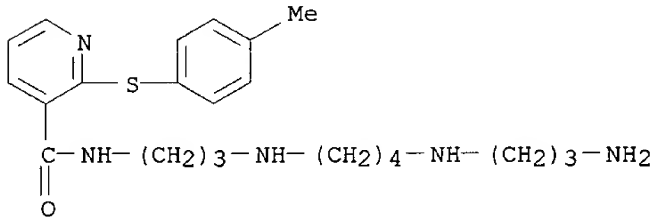
RN 220221-20-5 CAPLUS
CN 4-Quinolinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-7-chloro-2-(4-chlorophenyl)-6-methyl- (9CI) (CA INDEX NAME)



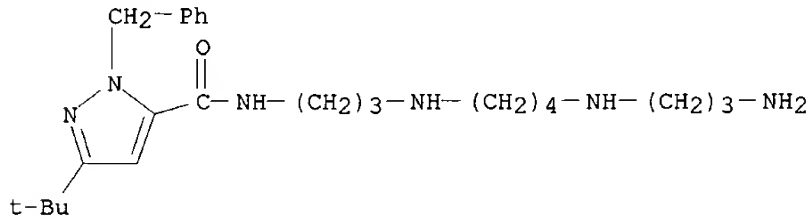
RN 220221-35-2 CAPLUS
CN 4-Thiazolecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-2-(2,3-dihydro-1,4-benzodioxin-2-yl)- (9CI) (CA INDEX NAME)



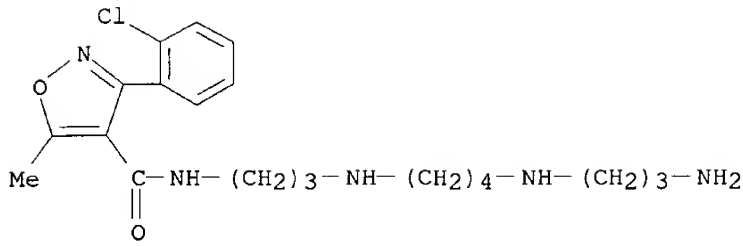
RN 220221-36-3 CAPLUS
CN 3-Pyridinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-2-[(4-methylphenyl)thio]- (9CI) (CA INDEX NAME)



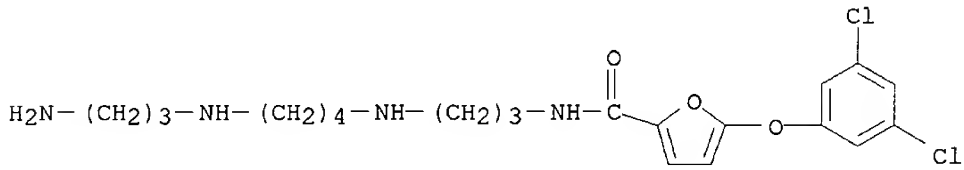
RN 220221-38-5 CAPLUS
CN 1H-Pyrazole-5-carboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-3-(1,1-dimethylethyl)-1-(phenylmethyl)- (9CI) (CA INDEX NAME)



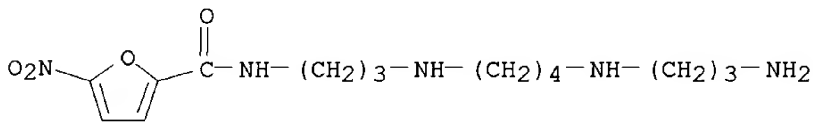
RN 330161-95-0 CAPLUS
CN 4-Isoxazolecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-3-(2-chlorophenyl)-5-methyl- (9CI) (CA INDEX NAME)



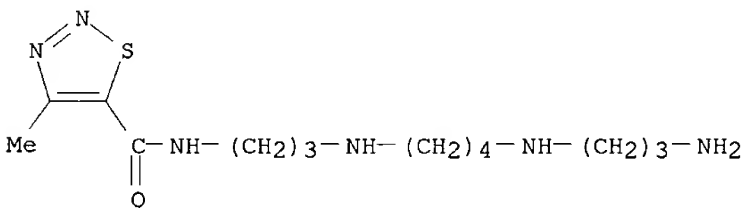
RN 330162-00-0 CAPLUS
CN 2-Furancarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-5-(3,5-dichlorophenoxy)- (9CI) (CA INDEX NAME)



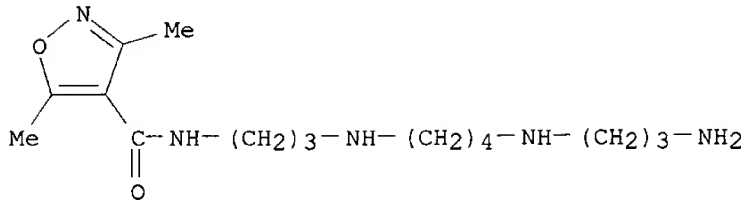
RN 330162-06-6 CAPLUS
CN 2-Furancarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-5-nitro- (9CI) (CA INDEX NAME)



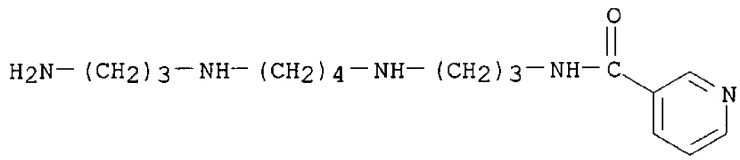
RN 330162-07-7 CAPLUS
CN 1,2,3-Thiadiazole-5-carboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-4-methyl- (9CI) (CA INDEX NAME)



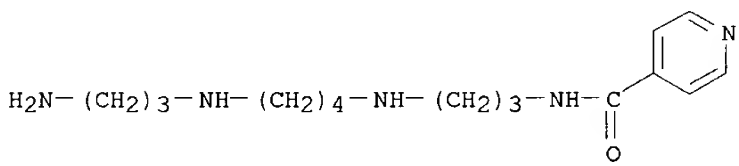
RN 330162-08-8 CAPLUS
CN 4-Isoxazolecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-3,5-dimethyl- (9CI) (CA INDEX NAME)



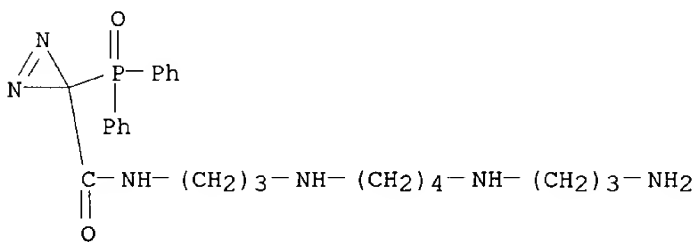
RN 330162-11-3 CAPLUS
CN 3-Pyridinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)



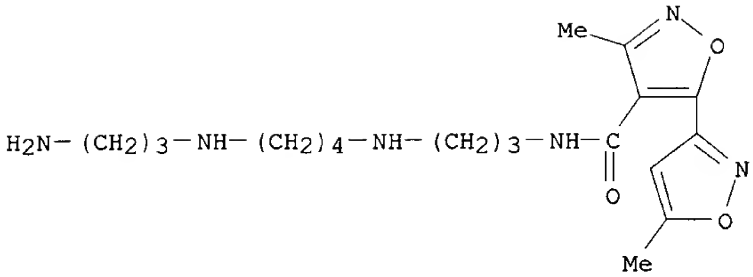
RN 330162-12-4 CAPLUS
CN 4-Pyridinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)



RN 330162-15-7 CAPLUS
CN 3H-Diazirine-3-carboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-3-(diphenylphosphinyl)- (9CI) (CA INDEX NAME)

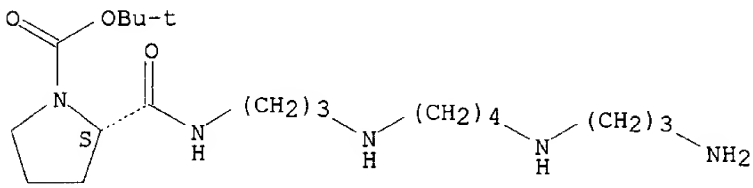


RN 330162-16-8 CAPLUS
CN [3,5'-Biisoxazole]-4'-carboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-3',5-dimethyl- (9CI) (CA INDEX NAME)



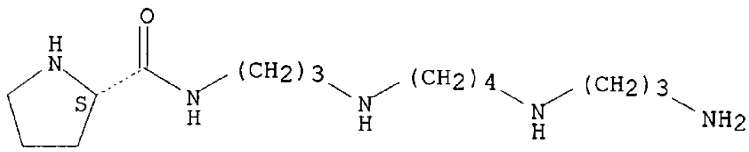
RN 330162-68-0 CAPLUS
CN 1-Pyrrolidinecarboxylic acid, 2-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino ]propyl]amino]carbonyl]-, 1,1-dimethylethyl ester, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



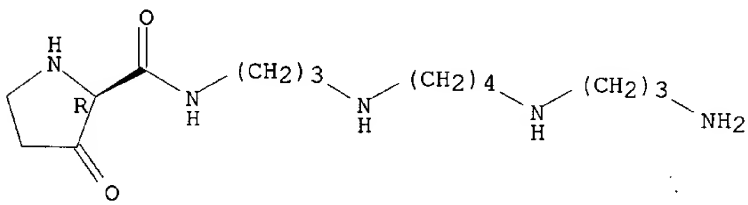
RN 330162-88-4 CAPLUS
CN 2-Pyrrolidinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propy l]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 330162-96-4 CAPLUS
CN 2-Pyrrolidinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propy l]-3-oxo-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

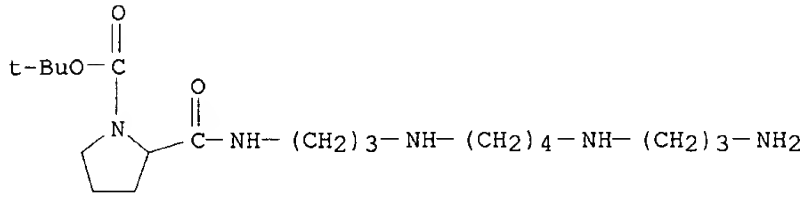


IT **220221-71-6P 220221-72-7P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of polyamines as therapeutic and diagnostic agents)

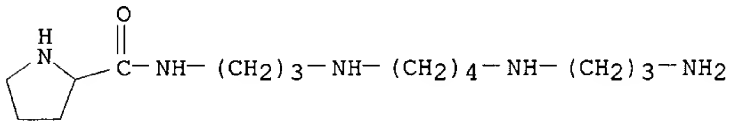
RN 220221-71-6 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 220221-72-7 CAPLUS

CN 2-Pyrrolidinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 48 CAPLUS COPYRIGHT 2002 ACS

AN 2001:173249 CAPLUS

DN 135:220721

TI Inhibitory effect of boanmycin on growth of colon carcinoma 26 and hepatic metastasis in mice

AU Liu, Xiujun; Li, Yi; Zhen, Yongsu

CS Institute of Medicinal Biotechnology, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, 100050, Peop. Rep. China

SO Yaoxue Xuebao (2001), 36(1), 14-18
CODEN: YHHPAL; ISSN: 0513-4870

PB Yaoxue Xuebao Bianjibu

DT Journal

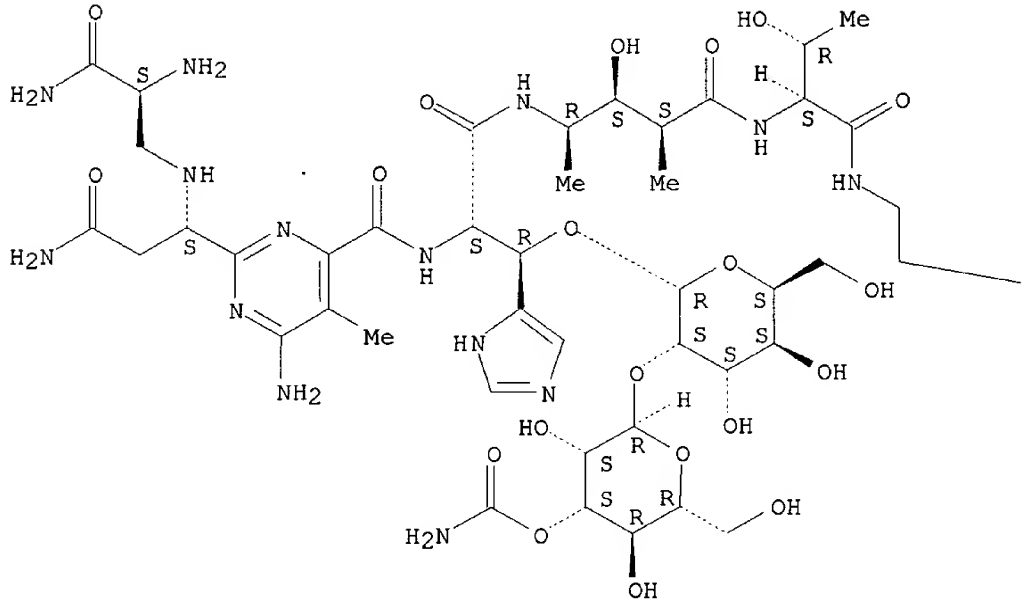
LA Chinese

AB The therapeutic effects of boanmycin (BAM, bleomycin A6) on colon carcinoma 26 and its hepatic metastasis in mice were studied. A series of models including s.c. transplant, orthotopic transplant in cecum sub-serosa, intra-hepatic transplant of tumor, and intrasplenic transplant of tumor accompanied with hepatic metastases were used. LEICA Q 500IW image anal. system was used to det. the area of metastatic lesions in the liver in histopathol. sections. The growth of s.c. tumors was inhibited by 78.7% and 61.9%, the orthotopic tumors by 99.4% and 90.0%, and the intra-hepatic tumors by 86.9% and 75.7% by BAM (5 mg kg-1 and 2.5 mg kg-1), resp. The hepatic metastases from intra-splenic transplant were inhibited by 97.6% and 56.8% by BAM (10 mg kg-1 and 5 mg kg- 1) based on detn. of the nos. of metastatic nodules, resp., and by 100% and 63.3% based on image anal. of metastatic lesions, resp. The results showed that boanmycin may have inhibitory effects on s.c., orthotopic, intra-hepatic transplanted tumors, and hepatic metastases of murine colon carcinoma 26.

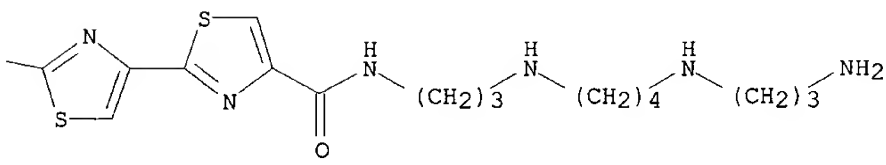
IT **37293-17-7**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibitory effect of boanmycin on growth of colon carcinoma 26 and hepatic metastasis in mice)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



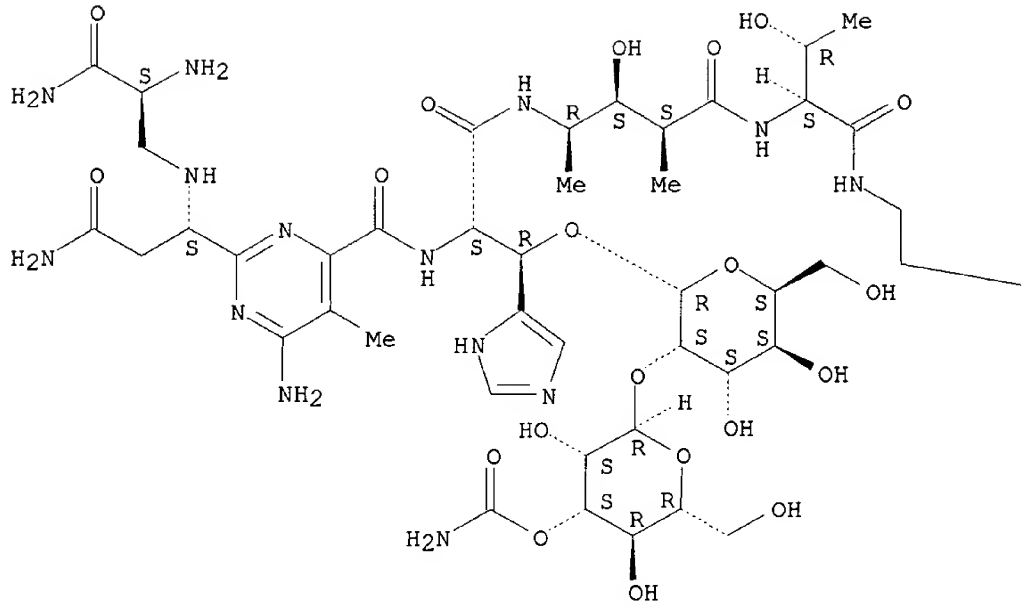
PAGE 1-B



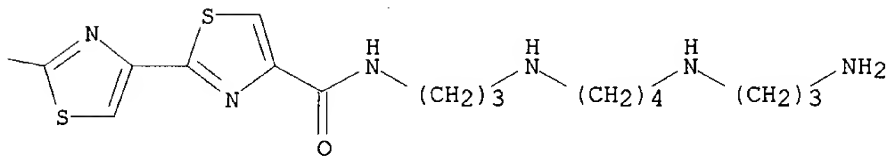
L4 ANSWER 6 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 2001:155070 CAPLUS
DN 135:174776
TI Activity of boanmycin against colorectal cancer
AU Deng, Yong Chuan; Zhen, Yong Su; Zheng, Shu; Xue, Yu Chuan
CS Cancer Institute, Medical School, Zhejiang University, Hangzhou, 310009, Peop. Rep. China
SO World Journal of Gastroenterology (2001), 7(1), 93-97
CODEN: WJGAF2; ISSN: 1007-9327
PB World Journal of Gastroenterology
DT Journal
LA English
AB A study was conducted in which a human colorectal tumor xenograft model in nude mice and the orthotopic model of murine colon cancer was used to clarify the antitumor effect of boanmycinin comparison with that of mitomycin C and 5-fluorouracil, drugs commonly used in clinics against colorectal cancer. The effect of BAM against colorectal cancer was detd. It was also examd. whether the organ microenvironment could influence the response of a murine colon cancer to systemic therapy with BAM. Results demonstrated that, using the orthotopic implantation technique, murine adenocarcinoma CT-26 can successfully produce an aggressive tumor which retained the morphol. biol. characteristics of the donor tumor and metastasized to the mesenteric glands. BAM inhibited tumor growth on CT-26 implanted into the cecum and s.c more than 5-fluorouracil and mitomycin C at the equitoxic dose. Moreover, the inhibitory effect BAM on the growth of CT-26 tumor was higher at the cecum than at the s.c site in mice, which implicates that BAM may have an organ-specific effect.
IT **37293-17-7**, Boanmycin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(activity of boanmycin against colorectal cancer)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1999:659275 CAPLUS
DN 131:303365
TI Polyene macrolide derivatives for use as nucleic acid vectors
IN Bolard, Jacques; Garcia, Christine; Seksek, Olivier; Borowski, Edward; Grzybowska, Jolanta
PA Universite Pierre et Marie Curie (Paris VI), Fr.; Technical University of Gdansk
SO PCT Int. Appl., 77 pp.
CODEN: PIXXD2

DT Patent
LA French
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 9951274 | A1 | 19991014 | WO 1999-FR808 | 19990407 |
| W: CA, JP, PL, US | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | | | FR 1998-4317 A | 19980407 |
| FR 2776927 | A1 | 19991008 | FR 1998-4317 | 19980407 |
| EP 1067969 | A1 | 20010117 | EP 1999-913358 | 19990407 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | | | FR 1998-4317 A | 19980407 |
| | | | WO 1999-FR808 W | 19990407 |

AB The invention concerns a compn. comprising: a neg. charged mol. of interest and a compd. comprising a cationic part capable of interacting with said mol., covalently bound to an active part derived from a macrolide polyene antibiotic. The invention also concerns the use of said compn. for vectoring mols. of interest (particularly nucleic acids), and the cells modified by such a compn.

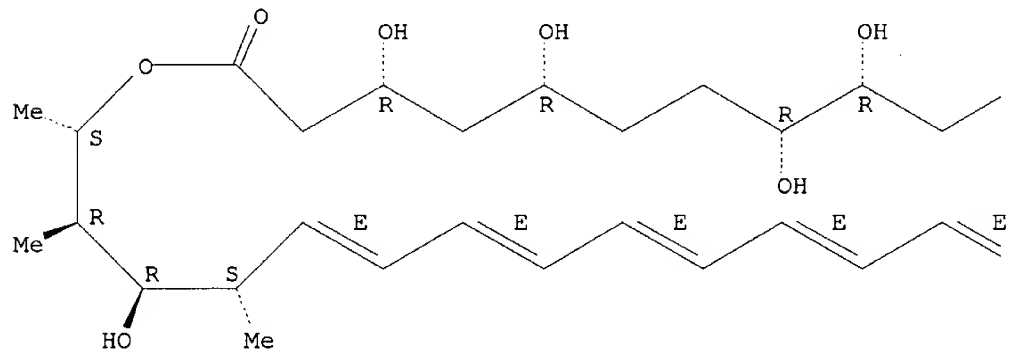
IT **247036-58-4**, AMSA
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polyene macrolide derivs. for use as nucleic acid vectors)

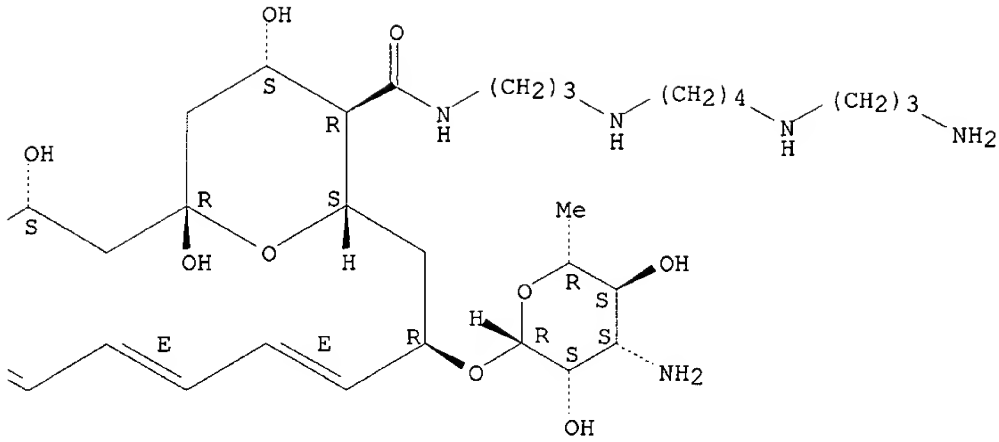
RN 247036-58-4 CAPLUS

CN Amphotericin B, 16-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-16-decarboxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A





RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1999:77533 CAPLUS
DN 130:153469
TI Novel polyamine analogs as therapeutic and diagnostic agents
IN Vermeulin, Nicolaas M. J.; O'Day, Christine L.; Webb, Heather K.; Burns, Mark R.; Bergstrom, Donald E.
PA Oridigm Corporation, USA
SO PCT Int. Appl., 143 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 9903823 | A2 | 19990128 | WO 1998-US14896 | 19980715 |
| | WO 9903823 | A3 | 19990408 | | |
| | W: AL, AM, AU, AZ, BA, BB, BG, BR, CA, CN, CU, CZ, EE, FI, GE, HU, IL, IS, JP, KG, KP, KR, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | | | | US 1997-52586P P | 19970715 |
| | | | | US 1997-65728P P | 19971114 |
| | | | | US 1998-85538P P | 19980515 |
| | AU 9884968 | A1 | 19990210 | AU 1998-84968 | 19980715 |
| | | | | US 1997-52586P P | 19970715 |
| | | | | US 1997-65728P P | 19971114 |
| | | | | US 1998-85538P P | 19980515 |
| | | | | WO 1998-US14896W | 19980715 |
| | EP 1001927 | A2 | 20000524 | EP 1998-935790 | 19980715 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | | | | US 1997-52586P P | 19970715 |
| | | | | US 1997-65728P P | 19971114 |
| | | | | US 1998-85538P P | 19980515 |

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|---|---|---|---|
| | | | WO 1998-US14896W 19980715 |
| JP 2001510181 | T2 | 20010731 | JP 2000-503054 19980715 |
| | | | US 1997-52586P P 19970715 |
| | | | US 1997-65728P P 19971114 |
| | | | US 1998-85538P P 19980515 |
| | | | WO 1998-US14896W 19980715 |
| US 6172261 | B1 | 20010109 | US 1999-341400 19990903 |
| | | | US 1997-52586P P 19970715 |
| | | | US 1997-65728P P 19971114 |
| | | | US 1998-85538P P 19980515 |
| | | | WO 1998-US14896W 19980715 |

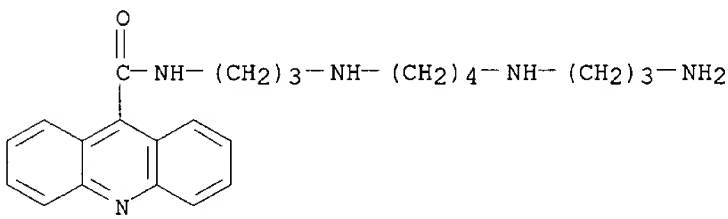
OS MARPAT 130:153469

AB Title inhibitors RXR1 [ R =H, or is a head group consisting of a straight or branched C1-10 aliph., alicyclic, single or multiring arom., single or multiring aryl substituted aliph., etc.; R1 is a polyamine; X = CO, NHCO, NHCS, SO2] and pharmaceutical acceptable salts of polyamine transport having inhibition consts. two orders of magnitude lower than those of known compds. are disclosed. These polyamine analogs are useful pharmaceutical agents for treating diseases where it is desired to inhibit polyamine transport or other polyamine binding proteins, for example cancer and post-angioplasty injury and the introduction of a 3-amidopropyl group to the diaminobutyl part of spermidine produce a significantly better transport inhibitor. Novel chem. synthetic methods to obtain polyamine analogs are disclosed, including the prodn. of a combinatorial polyamine library. These approaches yield analogs with desirable activities both for diagnostic and research assays and therapy. The assays of the invention are useful for high throughput screening of targets in the discovery of drugs that interact with the polyamine system. Thus, I was prepd. from 1-aminoanthracene, 4-nitrophenyl chloroformate, and spermine.

IT **181288-33-5P 220221-14-7P 220221-18-1P**
**220221-20-5P 220221-35-2P 220221-36-3P**
**220221-38-5P 220221-71-6P 220221-72-7P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of polyamines as therapeutic and diagnostic agents)

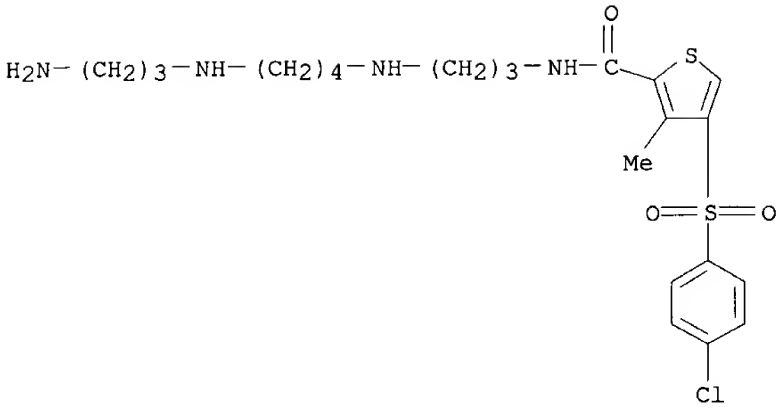
RN 181288-33-5 CAPLUS

CN 9-Acridinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

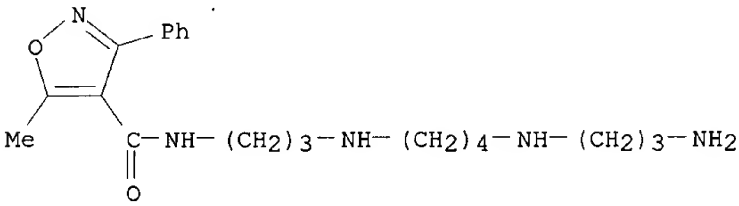


RN 220221-14-7 CAPLUS

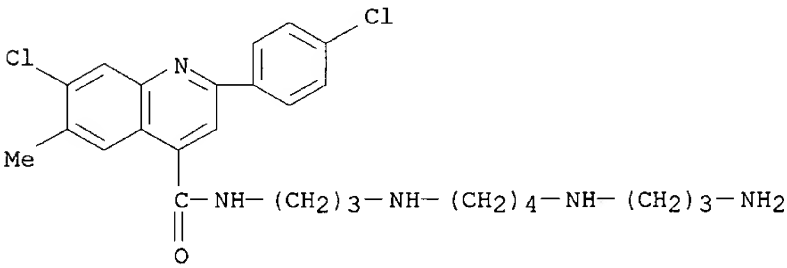
CN 2-Thiophenecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-4-[(4-chlorophenyl)sulfonyl]-3-methyl- (9CI) (CA INDEX NAME)



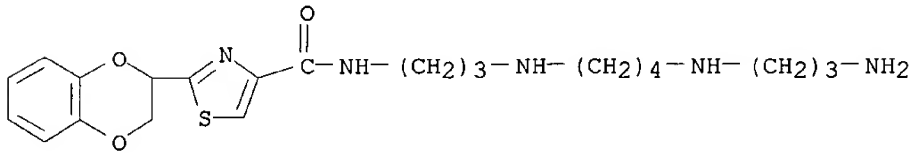
RN 220221-18-1 CAPLUS
CN 4-Isoxazolecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-5-methyl-3-phenyl- (9CI) (CA INDEX NAME)

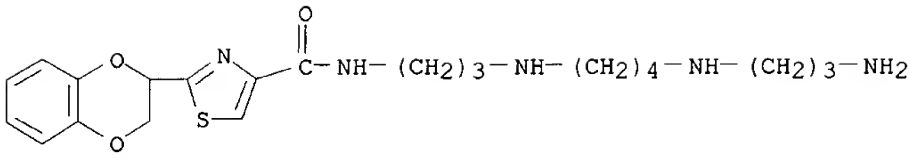


RN 220221-20-5 CAPLUS
CN 4-Quinolinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-7-chloro-2-(4-chlorophenyl)-6-methyl- (9CI) (CA INDEX NAME)

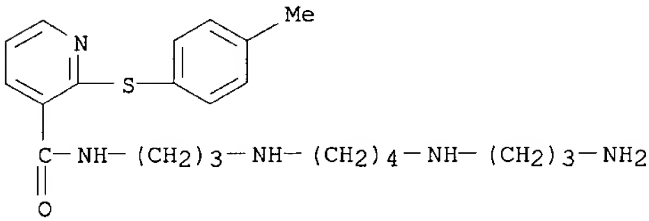


RN 220221-35-2 CAPLUS
CN 4-Thiazolecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-2-(2,3-dihydro-1,4-benzodioxin-2-yl)- (9CI) (CA INDEX NAME)

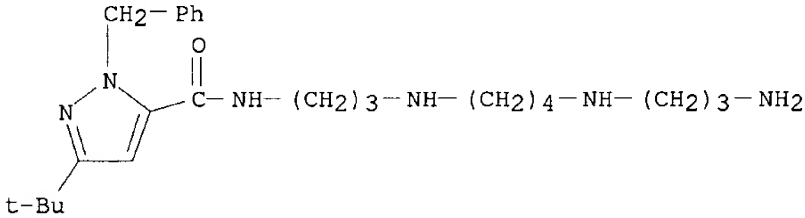




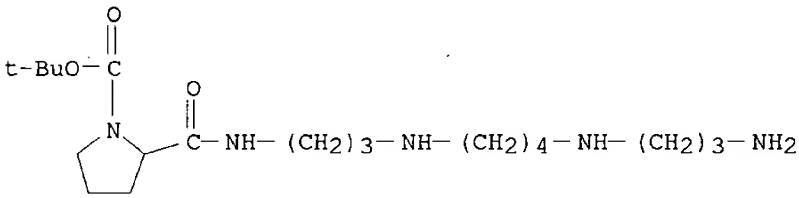
RN 220221-36-3 CAPLUS
CN 3-Pyridinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-2-[(4-methylphenyl)thio]- (9CI) (CA INDEX NAME)



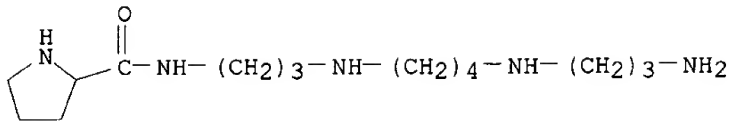
RN 220221-38-5 CAPLUS
CN 1H-Pyrazole-5-carboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]-3-(1,1-dimethylethyl)-1-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 220221-71-6 CAPLUS
CN 1-Pyrrolidinecarboxylic acid, 2-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



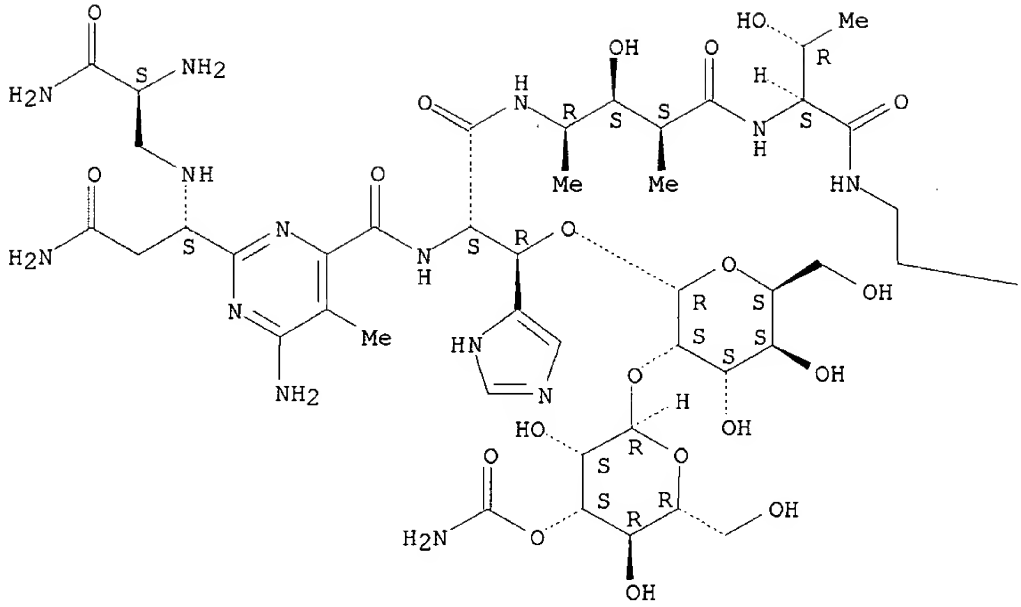
RN 220221-72-7 CAPLUS
CN 2-Pyrrolidinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)



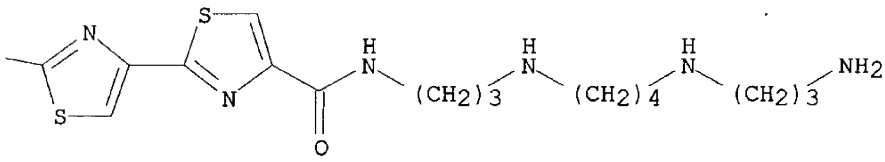
L4 ANSWER 9 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1998:506878 CAPLUS
DN 129:298013
TI Antitumor activity of bleomycin A6 against human nasopharyngeal cancer in cell culture and in nude mice
AU Guan, Zhong; Ye, Hui; Peng, Jieren; Yang, Xiaoping
CS Sun Yat-sen Memory Hospital, Sun Yat-sen University of Medical Sciences, Canton, 510120, Peop. Rep. China
SO Guangdong Yixue (1998), 19(5), 326-327
CODEN: GUYIEG; ISSN: 1001-9448
PB Guangdongsheng Yixue Qingbao Yanjiuso
DT Journal
LA Chinese
AB Cytotoxicity of bleomycin A6 on human nasopharyngeal carcinoma cell line SUNE-1 in culture and in nude mice xenografted with SUNE-1 cells was studied. MTT method demonstrated that the IC50 of bleomycin A6 was 1.45 .mu.g/mL in vitro. The in vitro inhibition rate was 84.3 and 88.9% at the dosage of 10 and 15 mg/kg, resp. The results suggest that bleomycin A6 possesses antitumor activity against human nasopharyngeal carcinoma in vitro and in vivo.
IT **37293-17-7**, Bleomycin A6
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitumor activity of bleomycin A6 against human nasopharyngeal cancer in cell culture and in nude mice)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

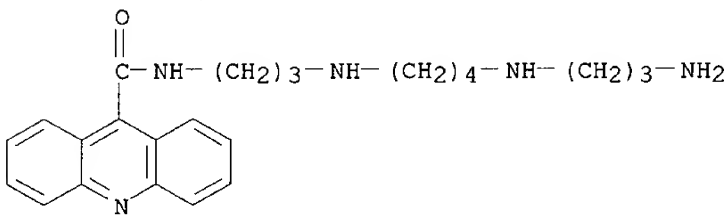


PAGE 1-B



L4 ANSWER 10 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1998:259725 CAPLUS
DN 129:37633
TI Asymmetric intercalation of N1-(acridin-9-ylcarbonyl)spermine at homopurine sites of duplex DNA
AU Blagbrough, Ian S.; Taylor, Steven; Taylor, Steven; Carpenter, Mark L.; Novoselskiy, Vyacheslav; Shamma, Tatyana; Haworth, Ian S.
CS Department of Pharmacy and Pharmacology, University of Bath, Bath, BA2 7AY, UK
SO Chem. Commun. (Cambridge) (1998), (8), 929-930
CODEN: CHCOFS; ISSN: 1359-7345
PB Royal Society of Chemistry

DT Journal
LA English
OS CASREACT 129:37633
AB N1-(Acridin-9-ylcarbonyl)spermine binds at 5'-pu-p-pu..5'-py-p-py sites of DNA with the acridine moiety asym. intercalated, stacked between the two purine bases; the spermine moiety interacts with the homopyrimidine phosphodiester backbone of the intercalation site and protects against DNase I cleavage of this backbone, but does not protect against cleavage of the homopurine backbone at the same intercalation site.
IT **181288-33-5P**
RL: BPR (Biological process); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(prepn. and asym. intercalation of N1-(acridin-9-ylcarbonyl)spermine at homopurine sites of duplex DNA)
RN 181288-33-5 CAPLUS
CN 9-Acridinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

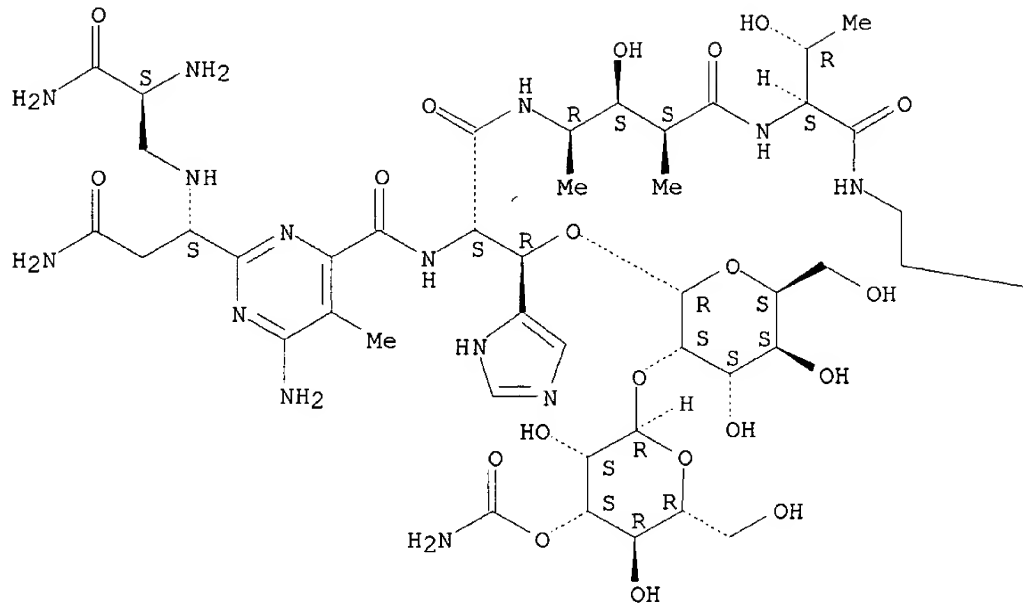


L4 ANSWER 11 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1997:685078 CAPLUS
DN 127:341476
TI The effect of boanmycin on renal biochemical function and morphology in rats
AU Ding, Qinxue; Lin, Futian
CS Peking Union Medical College, Institute Medicinal Biotechnology, Beijing, 100050, Peop. Rep. China
SO Zhongguo Kangshengsu Zazhi (1997), 22(1), 54-57
CODEN: ZKZAEY; ISSN: 1001-8689
PB Zhongguo Kangshengsu Zazhishe
DT Journal
LA Chinese
AB The effect of boanmycin on rat renal biochem. function and morphol. was studied. Both in acute and in subacute toxic expts., boanmycin caused increase of blood urea nitrogen (BUN), serum creatinine (SCr), and urinary protein in rats, and these increases were in a dose-dependent manner. Morphol. examns. showed that, in the later toxic period of rats intoxicated with boanmycin, the renal cortical cells were severely and extensively damaged, the epithelia of proximal convoluted tubes vacuolated, degenerated, or even necrosed. Ultrastructural changes included marked swelling of microvilli and mitochondria, and pyknotic nuclei.
IT **37293-17-7**, Boanmycin
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(the effect of boanmycin on renal biochem. function and morphol. in rats)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI)

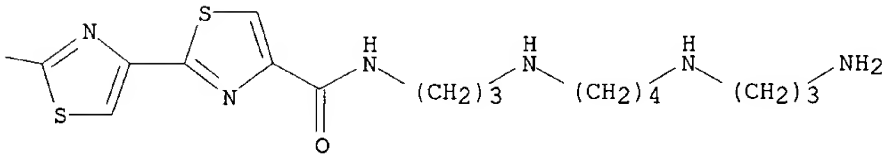
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

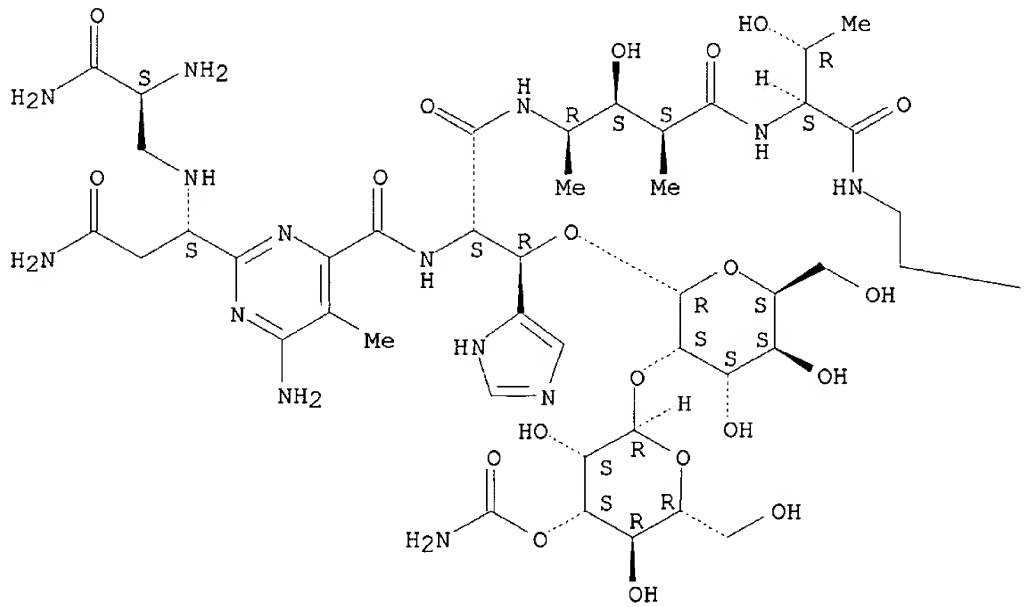


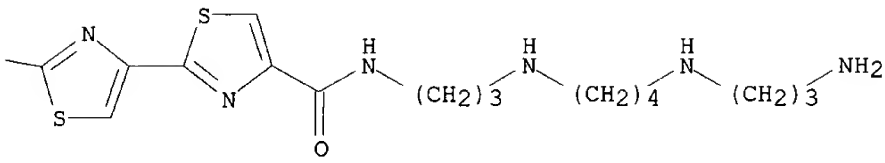
L4 ANSWER 12 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1997:685024 CAPLUS
DN 127:351122
TI Spin trapping detection of hydroxyl radicals generated from boanmycin in vitro
AU Ding, Qinxue; Lu, Daohui; Lin, Futian; Cheng, Dewen
CS Peking Union Medical College, Institute Medicinal Biotechnology, Beijing, 100050, Peop. Rep. China

SO Zhongguo Kangshengsu Zazhi (1997), 22(1), 49-53
CODEN: ZKZAEY; ISSN: 1001-8689
PB Zhongguo Kangshengsu Zazhishe
DT Journal
LA Chinese
AB Using DMPO as the trap, the hydroxyl free radical generation by boanmycin/ferrous sulfate/O2 system was detected with spin trapping technique. Neither boanmycin nor ferrous sulfate alone produced hydroxyl radicals in phosphate buffer saline (PBS). Adding both boanmycin and ferrous sulfate to PBS and bubbling O2 concurrently produced OH, the amplitude of ESR (ESR) spectra of hydroxyl radical increased with boanmycin in a concn.-dependent manner. The hydroxyl radicals produced by boanmycin were decreased by adding either EDTANa2 or catalase. With the substitution of ammonium iron (III) sulfate for ferrous sulfate (II) in PBS-boanmycin system, no ESR spectrum appeared.
IT **37293-17-7**, Boanmycin
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(spin trapping detection of hydroxyl radicals generated from boanmycin in vitro)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

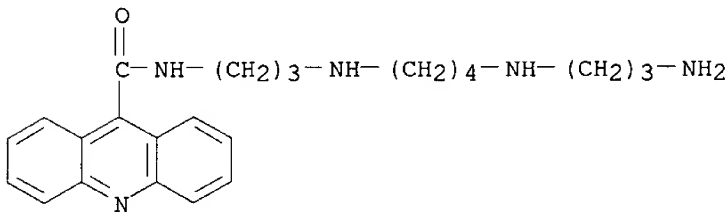
PAGE 1-A





L4 ANSWER 13 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1997:573429 CAPLUS
DN 127:257202
TI Optimization of the MTT assay for B16 murine melanoma cells and its application in assessing growth inhibition by polyamines and novel polyamine conjugates
AU Qarawi, Mousa A.; Carrington, Simon; Blagbrough, Ian S.; Moss, Stephen H.; Pouton, Colin W.
CS School of Pharmacy and Pharmacology, University of Bath, Bath, BA2 7AY, UK
SO Pharm. Sci. (1997), 3(5/6), 235-239
CODEN: PHSCFB; ISSN: 1356-6881
PB Royal Pharmaceutical Society of Great Britain
DT Journal
LA English
AB As part of the authors continuing development of new cytotoxins with potential anticancer activity, the authors have synthesized polyamine conjugates contg. both the linear tetra-amine spermine and an acridine unit. Studies of growth inhibition by these novel conjugates and spermine were carried out using B16 murine melanoma cells. The 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) bioassay has been optimized for this cell line with respect to incubation time for MTT metab., inoculum d. and incubation period. A linear relation has been established between the amt. of formazan produced and the no. of viable B16 murine melanoma cells. Furthermore, the optimal incubation time of cells with MTT is 3 h. Beyond this time no further significant amt. of formazan was generated. The optimal seeding d. was detd. (4000 cells/well for 2- or 3- day expts.), and the authors est. that the doubling time for B16 cells is approx. 24 h. In 48-h assays, spermine inhibits cell growth with an EC50 of 450 .mu.M, the acylated amide analog has an EC50 of 5 .mu.M, almost a hundred-fold increase in potency over spermine, and the aniline analog has an EC50 of 1 .mu.M, a five-fold increase in potency over amide analog. The EC50 for spermine and the aniline analog changed little over 3 and 6 days compared with the EC50 over 2 days. The authors conclude that there is little significant metabolic influence (with time) on the obsd. toxicity data. The authors have also shown that the synthetic conjugates combining both an intercalator and groove binder show greater cytotoxicity than compds. that exhibit just one of these modes of binding. These analogs therefore offer a new lead in the design of cytotoxic polyamines with potential anticancer activity.

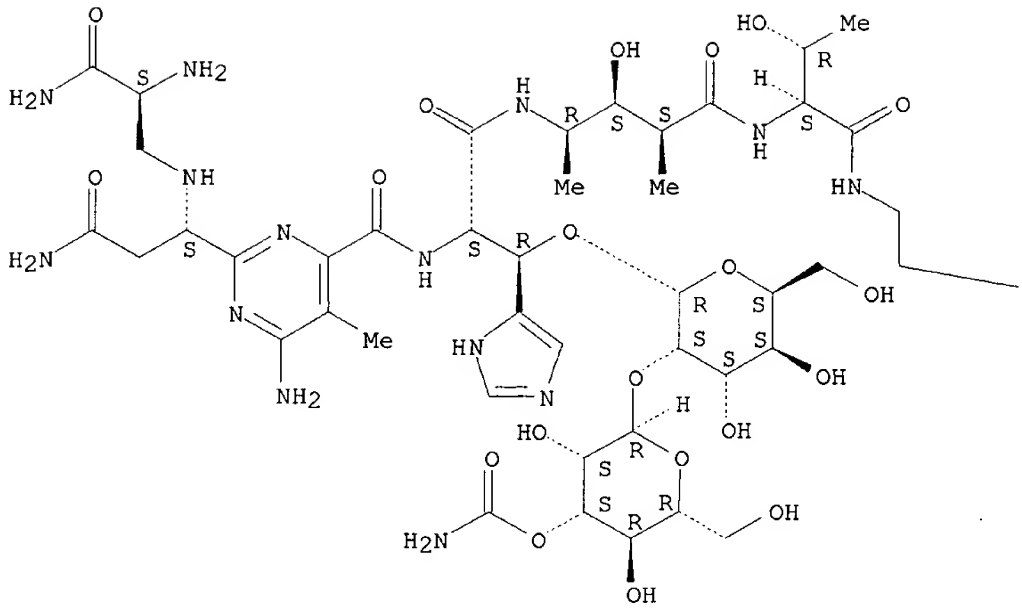
IT **181288-33-5**
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(optimization of MTT assay for B16 murine melanoma cells and application in assessing growth inhibition by polyamines and novel polyamine conjugates)
RN 181288-33-5 CAPLUS
CN 9-Acridinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)



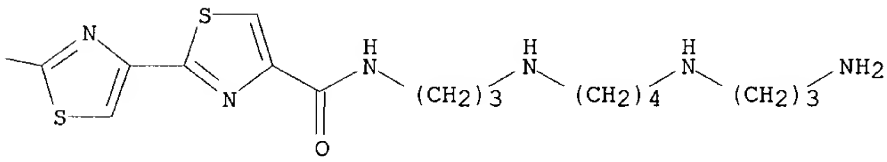
L4 ANSWER 14 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1997:196355 CAPLUS
DN 126:287667
TI Changes in oncogene expression induced by Bleomycin analogs
AU Yang, Ming; Zhang, Li-He; Zang, Chuan-Bin; Ye, Chao; Hu, Qi-Yue
CS National Laboratories Nature Biomimetic Drugs, Beijing Medical Univ., Beijing, 100083, Peop. Rep. China
SO Shengwu Huaxue Zazhi (1997), 13(1), 50-53
CODEN: SHZAE4; ISSN: 1000-8543
PB Zhongguo Shengwu Huaxue Yu Fenzi Shengwu Xuehui
DT Journal
LA Chinese
AB The study on gene expression changes induced by Bleomycin (BLM) analogs has been reported. BLM analogs can effectively suppress the c-myc oncogene expression on both translation and transcription levels based on ELISA system and Northern blotting. Ras oncogene suppressions induced by BLM A2 and A6 are remarkable, which indicates that they are p21-targeting anticancer antibiotics. The difference between BLM A2 and A6 and BLM A5 suggest that their anticancer activities may result from different mechanisms.
IT **37293-17-7**, Bleomycin A6
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(suppression of c-myc and ras oncogenes in bleomycin anticancer mechanism)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



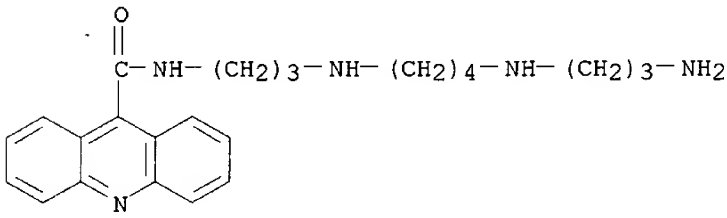
L4 ANSWER 15 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1996:495791 CAPLUS
DN 125:211937
TI Inhibition of growth of B16 murine melanoma cells by novel spermine analogs
AU Carrington, S.; Qarawi, M. A.; Blagbrough, I. S.; Moss, S. H.; Pouton, C. W.
CS Sch. Pharm. Pharmacol., Univ. Bath, Bath, BA2 7AY, UK
SO Pharm. Sci. (1996), 2(1), 25-27
CODEN: PHSCFB; ISSN: 1356-6881
DT Journal
LA English

AB To develop new cytotoxins, which could find use as anti-cancer agents, polyamine conjugates were synthesized contg. spermine and an anthracene or acridine unit. Spermine is known to groove-bind to DNA; anthracene and acridine are known to intercalate. It was hoped that these polyamine-polyarom. conjugates would use both modes of binding. Studies of growth inhibition of B16 murine melanoma cells showed the conjugates to be more effective than either spermine, anthracene-9-carboxylic acid or acridine-9-carboxylic acid, and of the conjugates, the acridine deriv. showed greatest activity.

IT **181288-33-5P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and inhibition of growth of B16 murine melanoma cells by novel spermine analogs contg. anthracene or acridine unit)

RN 181288-33-5 CAPLUS

CN 9-Acridinecarboxamide, N-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 16 OF 48 CAPLUS COPYRIGHT 2002 ACS

AN 1996:72080 CAPLUS

DN 124:164583

TI Minocycline potentiates the antimetastatic effect of boanmycin

AU Liu, J. G.; Jiang, M.; Xu, L. N.; Zhen, Y. S.

CS Inst. Med. Biotechnology, Chin. Acad. Med. Sci., Beijing, 100050, Peop. Rep. China

SO Yaoxue Xuebao (1995), 30(9), 668-73
CODEN: YHHPAL; ISSN: 0513-4870

DT Journal

LA Chinese

AB Boanmycin (bleomycin A6, BAM) was found to markedly inhibit the spontaneous pulmonary metastasis of Lewis carcinoma in mice. Compared at equitoxic doses (1/9 LD50), BAM was more effective than mitomycin. Minocycline (MNO) at 5 mg.cntdot.kg-1 showed no inhibition on the growth of s.c. transplanted Lewis primary tumor; however, it markedly potentiated the antimetastatic effect of BAM. Treated with BAM (5mg.cntdot.kg-1) alone, the no. of total metastatic foci and that of large foci (>2 mm in diam.) in the lung were suppressed by 67% and 85%, resp. When BAM was used in combination with MNO, the no. of those foci was further reduced by 88% and 100%, resp. By NAG enzyme assay, MNO was not cytotoxic and showed no synergism with BAM against PG cells, a cell line derived from a highly metastatic human giant cell carcinoma of the lung. Detd. by ELISA with a monoclonal antibody, the expression of type IV collagenase in PG cells was remarkably inhibited by MNO. The intracellular free Ca2+ level in PG cells was reduced from 76.1 mmol.cntdot.L-1 to 42.2 nmol.cntdot.L-1 by MNO treatment. The study suggests that the combination of boanmycin and minocycline may be useful for control of tumor metastasis and the

inhibition of type IV collagenase expression may be involved in the mechanism of minocycline potentiation.

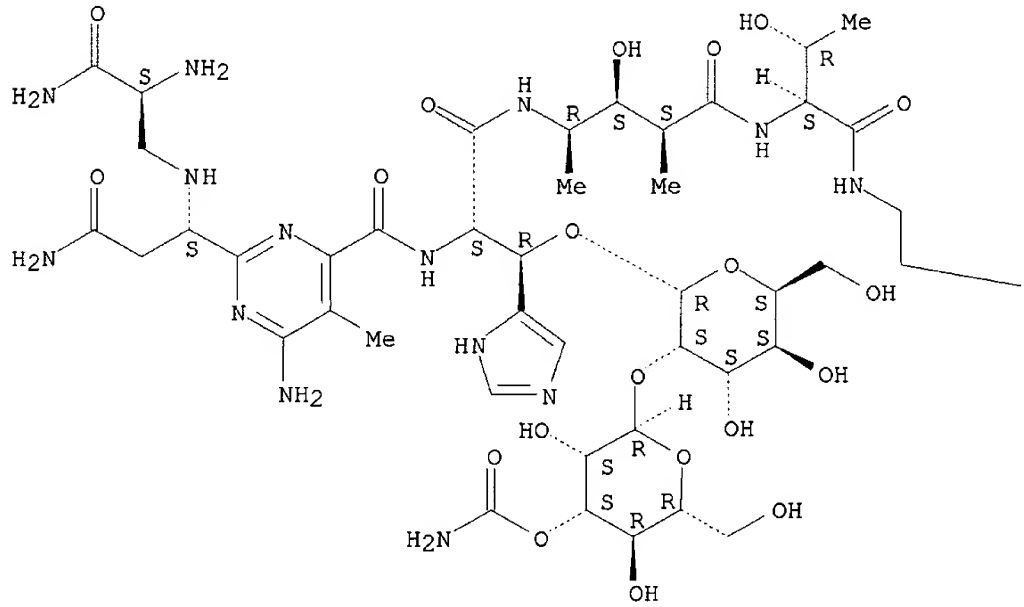
IT **37293-17-7**, Boanmycin
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(minocycline potentiates the antimetastatic effect of boanmycin)

RN 37293-17-7 CAPLUS

CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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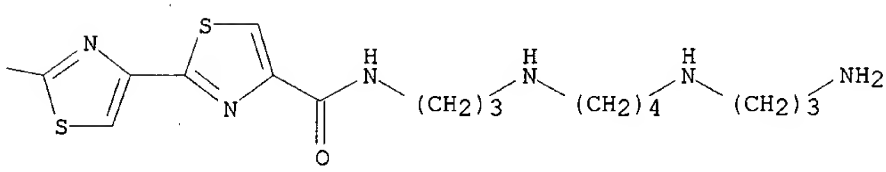
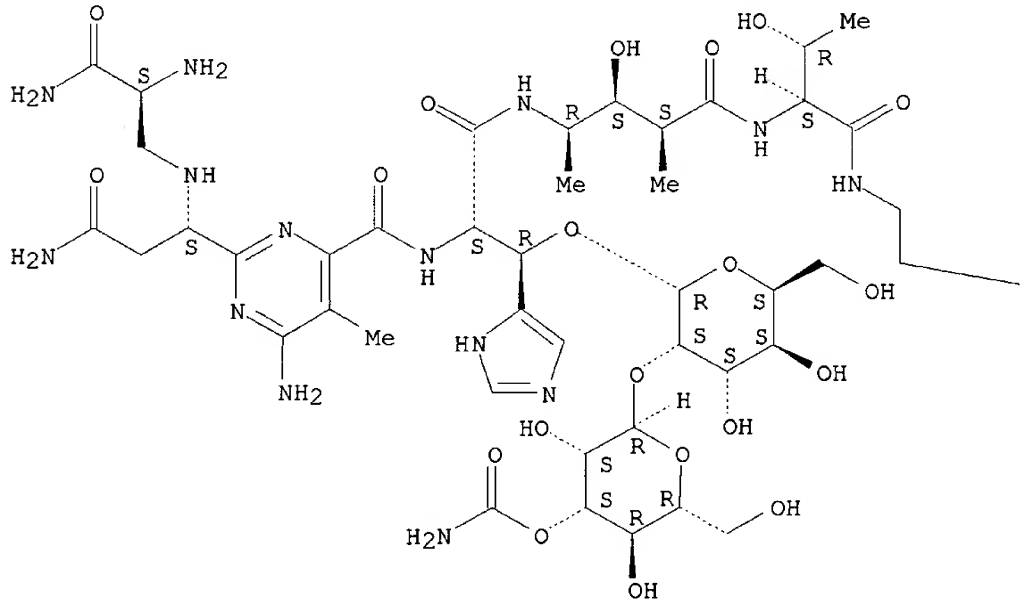
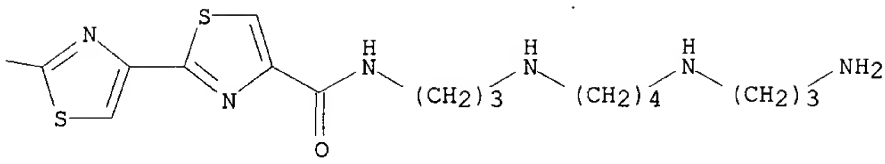


L4 ANSWER 17 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1995:948346 CAPLUS
DN 124:21291
TI molecular mechanism of the interaction between bleomycin A6 and DNA
AU Yang, Ming; Zhu, Shu-Mei; Liu, Jie; Zhang, Li-He; Xu, Hong-Zhang
CS Natl. Res. Lab. Nat. Biomimetic Drugs, Beijing Med. Univ., Beijing, 100083, Peop. Rep. China
SO Shengwu Huaxue Zazhi (1995), 11(5), 609-14
CODEN: SHZAE4; ISSN: 1000-8543
DT Journal
LA Chinese
AB The mol. mechanism of interaction between bleomycin A6 and DNA was studied. Bleomycin A6 binding to DNA by intercalation of bithiozol group was proved by spectra anal., increases of DNA viscosity and 1HNMR chem. shifts on titrn. with DNA. Binding strength was evaluated. The comparison of the binding between DNA and BLM analogs proves that terminal amine moieties contribute to their binding with DNA. The cleavage of PBR322 DNA induced by BLM A6 and its complexes with Cu(II) and Fe(II) studied by agarose gel electrophoresis showed the action of oxygen free radicals in the cleavage of DNA and the interrelation on the metal-chelating site and the DNA intercalation site. The correlation between pulmonary toxicity of BLM analogs and their terminal amine structures are discussed.
IT **37293-17-7**, Bleomycin A6
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(mol. mechanism of the interaction between bleomycin A6 and DNA)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

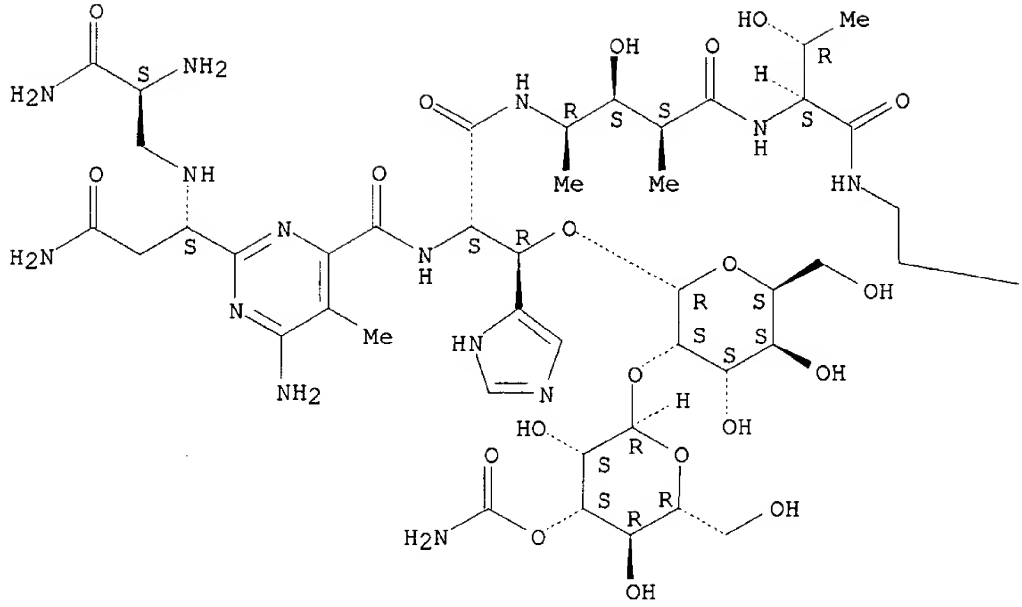




L4 ANSWER 18 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1995:544087 CAPLUS
DN 122:281629
TI Antitumor activity of immunoconjugates composed of boanmycin and monoclonal antibody
AU Zhen, Yongsu; Peng, Ze; Deng, Yongchuan; Xu, Hongzhang; Chen, Yuxian; Tian, Peiyu; Li, Diandong; Jiang, Min
CS Institute of Medicinal Biotechnology, CAMS, Beijing, 100050, Peop. Rep. China
SO Chin. Med. Sci. J. (1994), 9(2), 75-80
CODEN: CMSJEP
DT Journal
LA English
AB Boanmycin (bleomycin A6, BM), an antitumor antibiotic, was conjugated to monoclonal antibodies including R19, H111 and CCT2. The immunoconjugates exhibited selective cytotoxicity to related target cells including cecum cancer Hce-8693 cells, liver cancer BEL-7402 cells and leukemia CEM cells. They were highly effective against related human tumor xenografts in nude mice, and the inhibition rates by the conjugates were much higher than those by free BM. The inhibition rate by R19-BM conjugate against human cecum cancer xenografts reached 90%. BY immunoelectron microscopy, CCT2-BM conjugate showed specific binding and internalization in leukemia CEM cells. The results indicate that boanmycin-monoclonal antibody immunoconjugates are highly active both in vitro and in vivo.
IT **37293-17-7**, Boanmycin
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitumor activity of immunoconjugates composed of boanmycin and monoclonal antibody)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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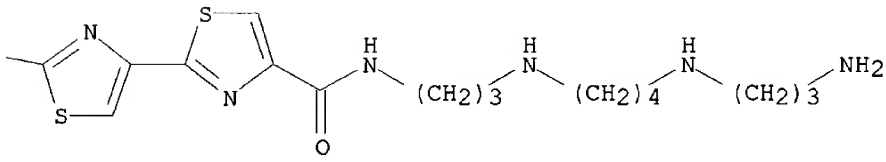


L4 ANSWER 19 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1995:284971 CAPLUS
DN 122:265974
TI Amides of de-acetylglucosaminyl-deoxy teicoplanin active against highly glycopeptide-resistant enterococci. Synthesis and antibacterial activity
AU Malabarba, Adriano; Ciabatti, Romeo; Kettenring, Juergen; Ferrari, Pietro; Scotti, Roberto; Goldstein, Beth P.; Denaro, Maurizio
CS Marion Merrell Dow Research Inst., Lepetit Center, Gerenzano, 21040, Italy
SO J. Antibiot. (1994), 47(12), 1493-506
CODEN: JANTAJ; ISSN: 0021-8820
DT Journal
LA English

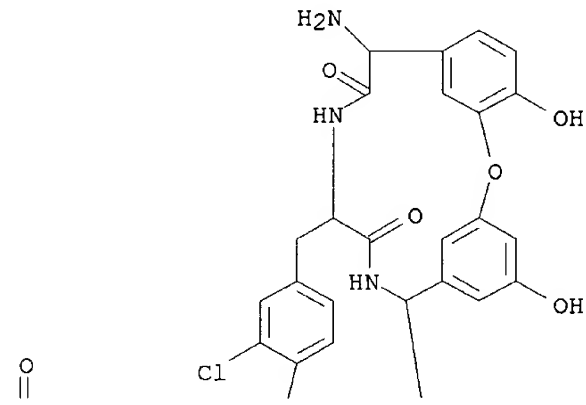
AB Removal, by selective redn., of the acetylglucosamine from teicoplanin A2-2 (I) produced the 34-de(acetylglucosaminyl)-34-deoxy pseudoaglycone (II). This compd. was more active in vitro than I against coagulase-neg. staphylococci. Amide derivs. obtained by condensation of the carboxyl group of II with primary amines were particularly active against Streptococcus pyogenes and had some in vitro activity against VanA enterococci highly resistant to both teicoplanin and vancomycin. Among them, a carboxamide with a branched tetramine also had better activity than the corresponding amide of teicoplanin against coagulase-neg. staphylococci. In contrast, the dimethylamide of II had little activity against VanA enterococci. While the overall structure of the heptapeptide backbone of the secondary carboxamides of II is the same as in I and its amide derivs., in deoxy pseudoaglycone II and its tertiary amide the 51,52-peptide bond undergoes a conformational change from the original cisoid to the transoid orientation. This difference between the secondary amides of II and the dimethylamide is reflected in their different antibacterial spectrum. The direct synthesis of the amides of II from I by reaction with sodium borohydride is also described.

IT **133236-15-4**
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(synthesis and antibacterial activity of amides of deacetylglucosaminyldeoxyteicoplanin)

RN 133236-15-4 CAPLUS

CN Ristomycin A aglycone, 34-O-[2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]-38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19-deoxy-56-O-[2-deoxy-2-[(8-methyl-1-oxononyl)amino]-.beta.-D-glucopyranosyl]-42-.alpha.-D-mannopyranosyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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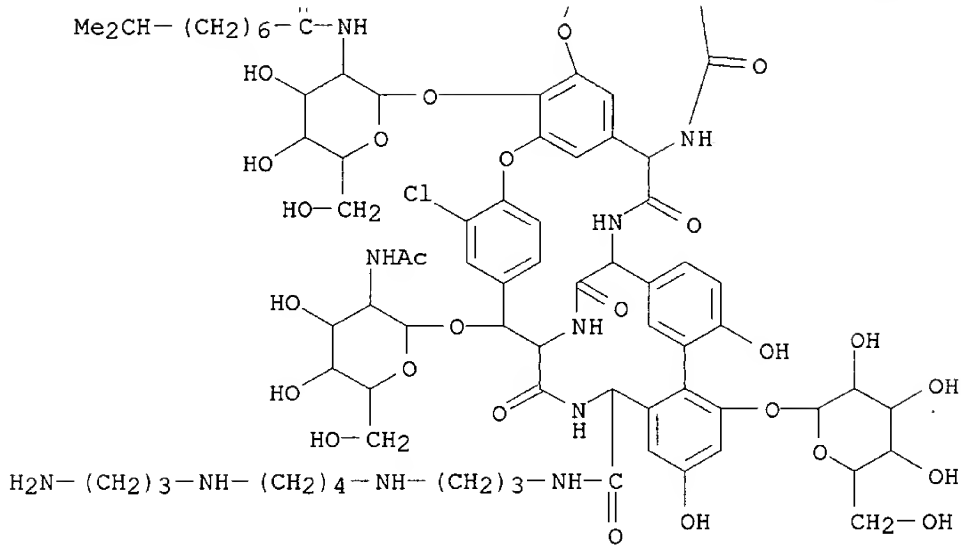
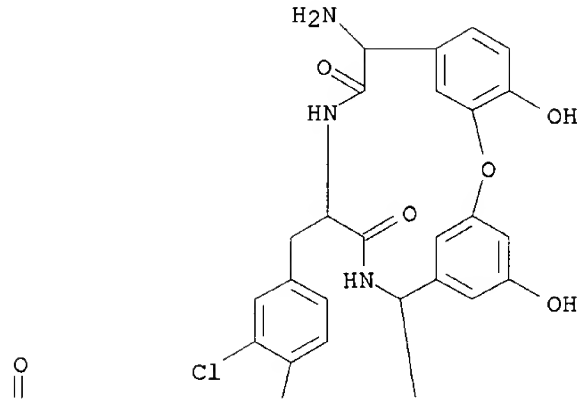


IT **131705-01-6P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis and antibacterial activity of amides of deacetylglucosaminyldeoxyteicoplanin)

RN 131705-01-6 CAPLUS

CN Ristomycin A aglycone, 38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19,34-dideoxy-56-O-[2-deoxy-2-[(8-methyl-1-oxononyl)amino]-.beta.-D-glucopyranosyl]-42-O-.alpha.-D-mannopyranosyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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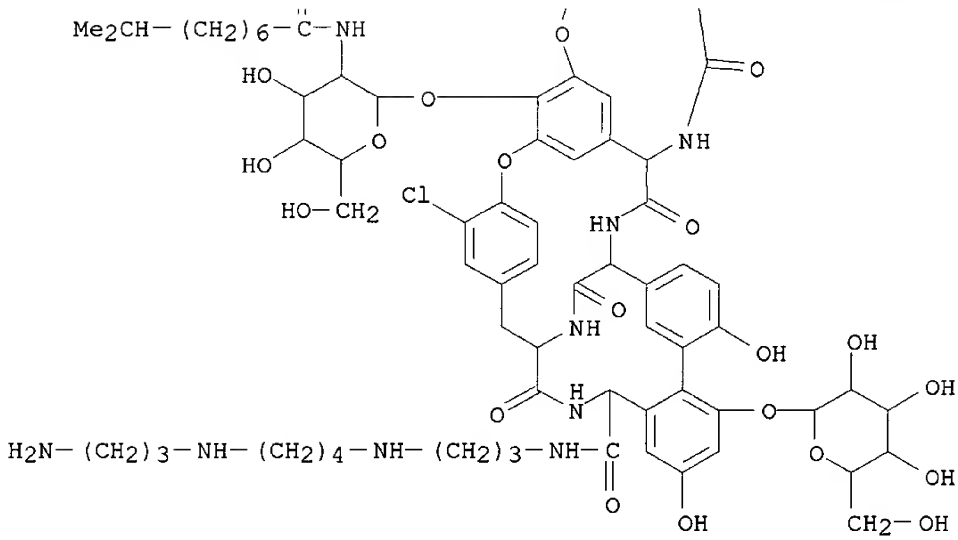
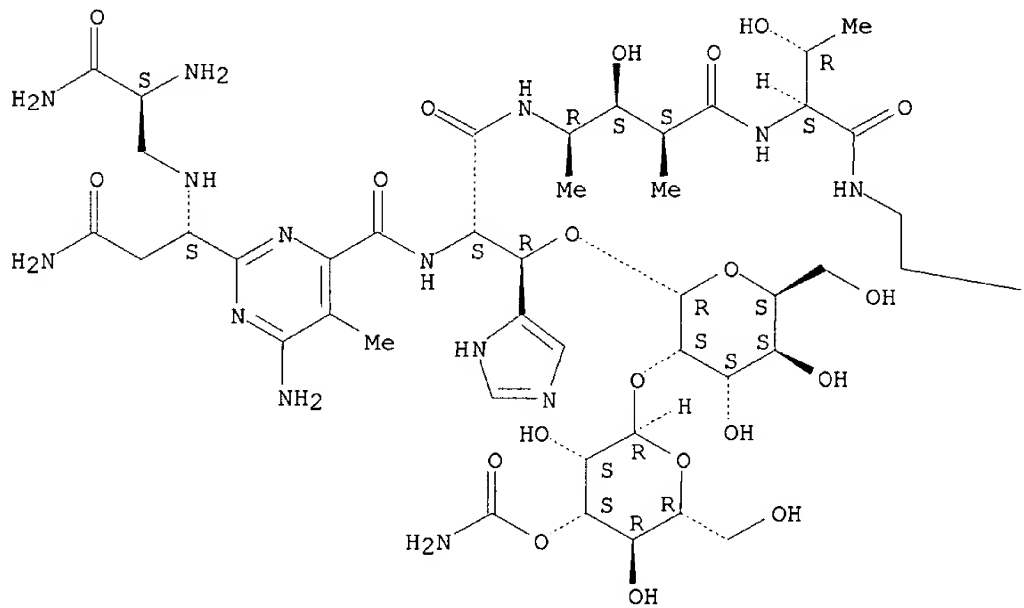


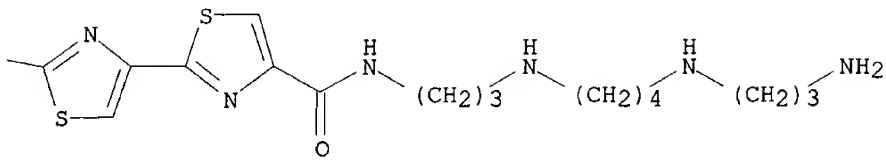
L4 ANSWER 20 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1994:124587 CAPLUS
DN 120:124587
TI Effects of 764-3 on the organization and function of microtubules and microfilaments in bleomycin A6-activated rat alveolar macrophages
AU Zhang, Hongyu; Yan, Yizhao
CS Inst. Basic Med. Sci., Chin. Acad. Med. Sci., Beijing, Peop. Rep. China

SO Zhongguo Yixue Kexueyuan Xuebao (1993), 15(4), 306-10
CODEN: CIHPDR; ISSN: 1000-503X
DT Journal
LA Chinese
AB Studies on the effects of 764-3 on the distribution, structure, and function of microtubules and microfilaments in bleomycin A6-activated rat alveolar macrophages (using immunofluorescence microscopy) indicated that bleomycin B6 promoted the reorganization of microtubules and microfilaments and that 764-3 stabilized the structure. 764-3 May be useful in treating lung damage.
IT **37293-17-7,** Bleomycin A6
RL: BIOL (Biological study)
(alveolar macrophage function and structure response to 764-3 and, lung damage treatment in relation to)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

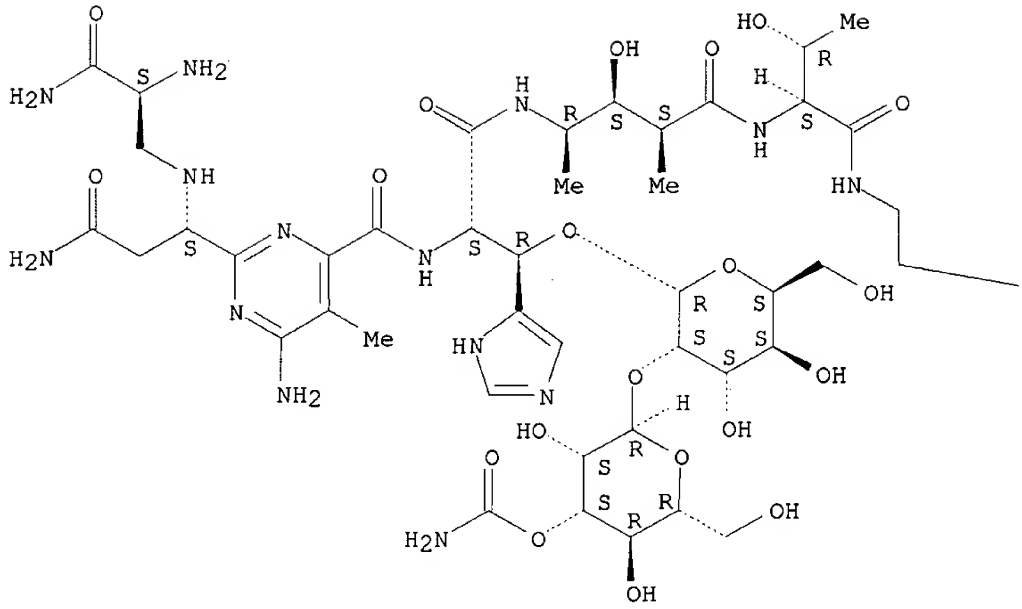




L4 ANSWER 21 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1994:45315 CAPLUS
DN 120:45315
TI The effect of 764-3 on alveolar macrophage morphologic changes induced by BLM-A6
AU Chi, Sujuan; Yan, Yizhao
CS Inst. Basic Med. Sci., Chin. Acad. Med. Sci., Beijing, Peop. Rep. China
SO Zhongguo Yixue Kexueyuan Xuebao (1993), 15(2), 94-7
CODEN: CIHPDR; ISSN: 1000-503X
DT Journal
LA Chinese
AB The morphol. changes of alveolar macrophages (AM) were obsd. by electron microscopy, computer controlled image anal. and stereoscopy. The results showed that 764-3 had no effect on normal AM morphol. and structure, but inhibited bleomycin A6 (BLM-A6)-induced increase in the vol., sp. surface, and lysosome vol. d. of AM. At the same time, the spreading ability of AM on the slide was markedly reduced by 764-3, indicating that 764-3 can partially prevent the AM activation caused by BLM-A6 in vitro.
IT **37293-17-7**, Bleomycin A6
RL: BIOL (Biological study)
(alveolus macrophage morphol. change induction by, 764-3 effect on)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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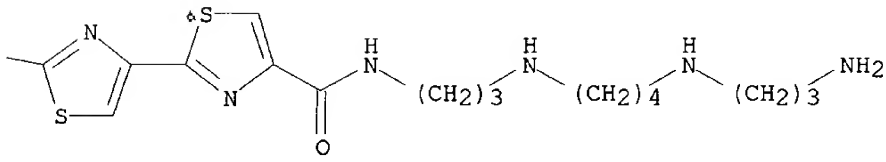


L4 ANSWER 22 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1993:595203 CAPLUS
DN 119:195203
TI Experimental studies on therapeutic effect of rat monoclonal antibody-bleomycin A6 conjugate against human colorectal cancer
AU Deng, Y. C.; Zhen, Y. S.; Zheng, S.; Jiang, M.
CS Inst. Med. Biotechnol., Chin. Acad. Medical Sci., Bejing, 100050, Peop. Rep. China
SO Yaoxue Xuebao (1993), 28(6), 410-15
CODEN: YHHPAL; ISSN: 0513-4870
DT Journal
LA Chinese

AB Bleomycin A6 (A6), a single component of bleomycin complex, is highly active against human colon and cecum cancer cells in vitro and xenografts in nude mice. R19, a rat monoclonal antibody against human cecum cancer Hce-8693 cells, was linked to A6. R19-A6 conjugate retained complete activity of McAb R19 and 10% activity of A6. As detd. by clonogenic assay with human cecum cancer Hce-8693 cells for 1h exposure. The 50% inhibitory concn. (IC50) values for R19-A6, A6 and M3-A6 (conjugate if irrelevant Mc-A6 were 0.019, 1.05 and 1.00 .mu.mol/L, resp. The effect of the conjugate R19-A6 was 55-fold stronger than that of free A6 and 53-fold than irrelevant conjugate M3-A6. Clonogenic assay with human colon cancer HT-29 cells showed that the IC50 values were 0.078 .mu.mol/L and 4.0 .mu.mol/L for R19-A6 and free A6, resp. The cytotoxicity to Hce-8693 and HT-29 cells was markedly blocked by unconjugated McAb R19 but not by irrelevant McAb MARK-3. The R19-A6 conjugate exerted 90% inhibition on the growth of cecum cancer Hce-8693 xenografts in nude mice, whereas equiv. dosed of free A6, R19 plus A6 mixt. and M3-A6 showed 52%, 34% and 48% inhibition, resp. Histopathol. examn. showed no toxic changes in the heart, lung, liver, kidney and bone marrow in the R19-A6 conjugate treated animals. These results suggest that the conjugate of R19 and A6 shows selective cytotoxicity to target human colon and cecum cancer cells and is highly effective against cecum cancer xenografts in nude mice with more remarkable tumor growth inhibition than free A6 at equiv. dose level.

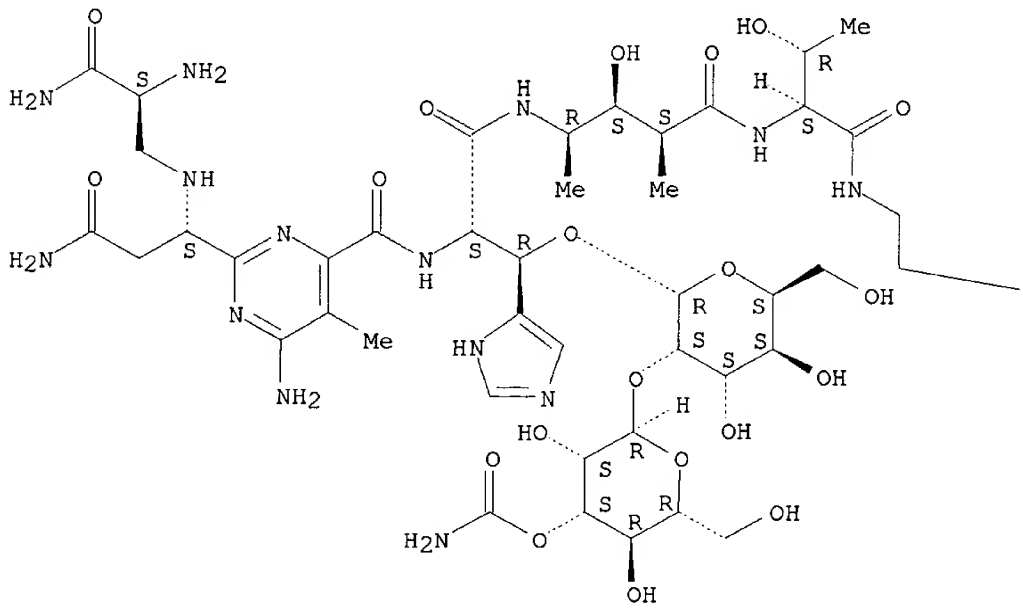
IT **37293-17-7D**, Bleomycin A6, complexes with monoclonal antibody
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(neoplasm inhibition by)

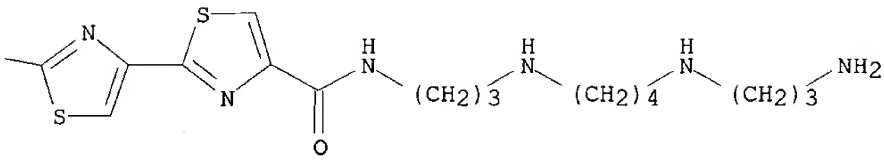
RN 37293-17-7 CAPLUS

CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

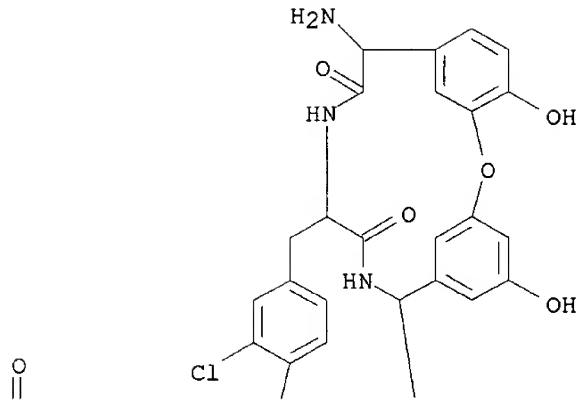
PAGE 1-A





L4 ANSWER 23 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1992:608773 CAPLUS
DN 117:208773
TI Synthesis and antibacterial activity of a series of basic amides of teicoplanin and deglucoteicoplanin with polyamines
AU Malabarba, Adriano; Ciabatti, Romeo; Kettenring, Jurgen; Scotti, Roberto; Candiani, Gianpaolo; Pallanza, Rosa; Berti, Marisa; Goldstein, Beth P.
CS Lepetit Res. Cent., Marion Merrell Dow Res. Inst., Gerenzano, 21040, Italy
SO J. Med. Chem. (1992), 35(22), 4054-60
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
AB Basic carboxamides of teicoplanin A2 (CTA) and its aglycon (TD) were prepd. by condensation of the 63-carboxyl function of these antibiotics with linear or branched polyamines. The antimicrobial activities of some of the resulting compds. were better than those of the unmodified antibiotics. The presence of >1 basic group in the amide chain enhanced the in vitro activity of some TD-amides against gram-neg. bacteria; 2 of these derivs. were also effective in vivo against Escherichia coli septicemia in the mouse. Among the CTA derivs., the amide with spermine showed some unexpected in vitro activity against gram-negs. Both CTA- and TD-amides with polyamines are very sol. in water over a wide range of pH and are very hydrophilic.
IT **133236-15-4 133236-25-6**
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(synthesis and antibacterial activity of)
RN 133236-15-4 CAPLUS
CN Ristomycin A aglycone, 34-O-[2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]-38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19-deoxy-56-O-[2-deoxy-2-[(8-methyl-1-oxononyl)amino]-.beta.-D-glucopyranosyl]-42-.alpha.-D-mannopyranosyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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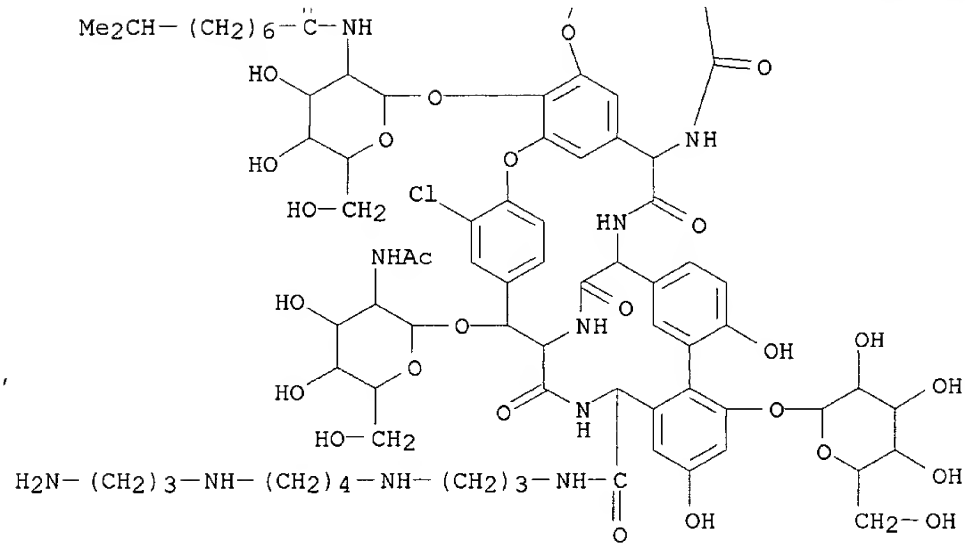
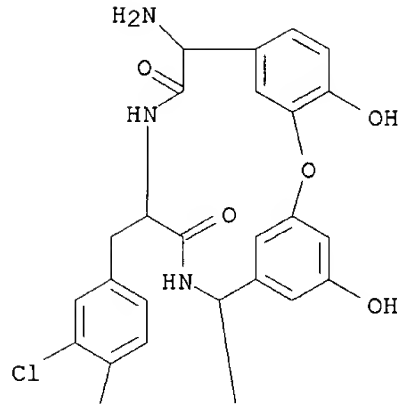


RN 133236-25-6 CAPLUS
CN Ristomycin A aglycone, 38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19-deoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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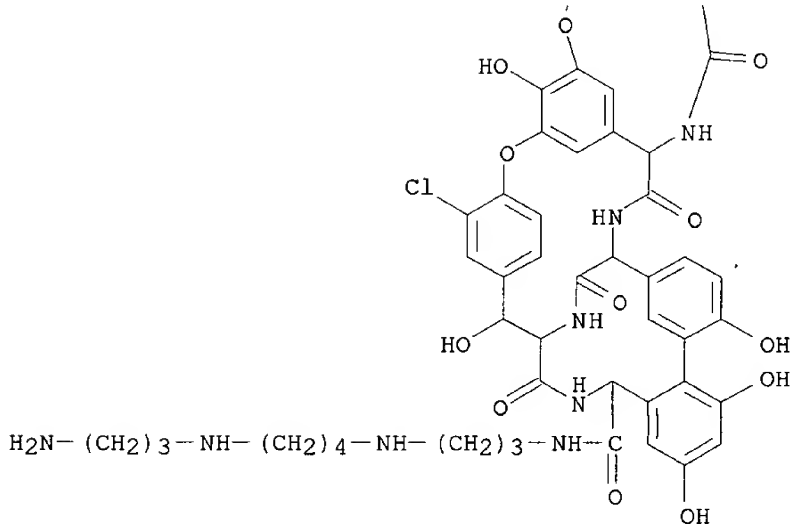

L4 ANSWER 24 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1992:524474 CAPLUS
DN 117:124474
TI Use of C63-amide derivatives of 34-de(acetylglucosaminyl)-34-deoxyteicoplanin against bacteria resistant to glycopeptide antibiotics
IN Malabarba, Adriano; Kettenring, Jurgen Kurt
PA Gruppo Lepetit S.p.A., Italy

SO Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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PATENT FAMILY INFORMATION:
FAN 1991:82558

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| | EP 376041 | B1 | 19960228 | | |
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| | NO 178664 | C | 19960508 | | |
| | | | | EP 1988-121708 | 19881227 |
| | AU 8946984 | A1 | 19900705 | AU 1989-46984 | 19891219 |
| | AU 629883 | B2 | 19921015 | | |
| | | | | EP 1988-121708 | 19881227 |
| | ZA 8909772 | A | 19910130 | ZA 1989-9772 | 19891220 |
| | | | | EP 1988-121708 | 19881227 |
| | IL 92827 | A1 | 19940826 | IL 1989-92827 | 19891220 |
| | | | | EP 1988-121708 | 19881227 |
| | CA 2006379 | AA | 19900627 | CA 1989-2006379 | 19891221 |
| | | | | EP 1988-121708 | 19881227 |
| | HU 53376 | A2 | 19901028 | HU 1989-6772 | 19891222 |
| | HU 209939 | B | 19941228 | | |

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|---|---|---|---|---|
| | | | EP 1988-121708 | 19881227 |
| FI 91076 | B | 19940131 | FI 1989-6199 | 19891222 |
| FI 91076 | C | 19940510 | | |
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| RU 2068418 | C1 | 19961027 | RU 1989-4742809 | 19891226 |
| | | | EP 1988-121708 | 19881227 |
| CN 1043941 | A | 19900718 | CN 1989-109576 | 19891227 |
| | | | EP 1988-121708 | 19881227 |
| JP 02221298 | A2 | 19900904 | JP 1989-336811 | 19891227 |
| | | | EP 1988-121708 | 19881227 |
| US 5194424 | A | 19930316 | US 1992-887121 | 19920520 |
| | | | EP 1988-121708 | 19881227 |
| | | | US 1989-453649 | 19891220 |
| | | | EP 1990-110102 | 19900528 |
| | | | US 1990-544719 | 19900627 |

OS MARPAT 117:124474

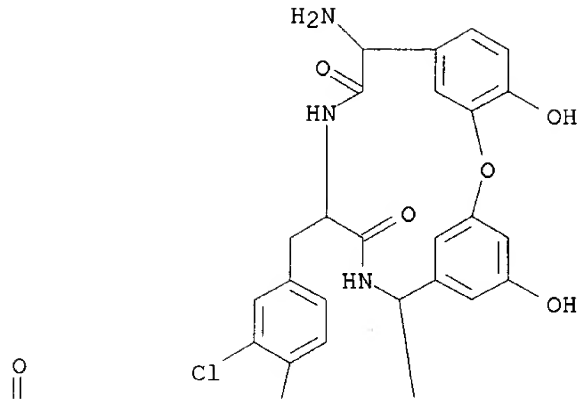
AB C63-amide derivs. of 34-de(acetylglucosaminyl)-34-deoxyteicoplanin, wherein the amide moiety is derived from a di- or polyamine, are active against Gram-pos. microorganisms, in particular Group A Streptococcus and also against bacteria which are resistant to glycopeptide antibiotics. The derivs. were prepd. by reacting 34-de(acetylglucosaminyl)-34-deoxyteicoplanins with an active ester-forming reagent such as chloroacetonitrile and then contacting the active esters with the appropriate di- or polyamine. The min. inhibitory concn. of the derivs. against Streptococcus faecalis was <2 .mu.g/mL.

IT **131705-01-6P 131705-02-7P 131705-03-8P**
**131705-04-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as antibacterial against Gram pos. microorganisms)

RN 131705-01-6 CAPLUS

CN Ristomycin A aglycone, 38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19,34-dideoxy-56-O-[2-deoxy-2-[(8-methyl-1-oxononyl)amino]-.beta.-D-glucopyranosyl]-42-O-.alpha.-D-mannopyranosyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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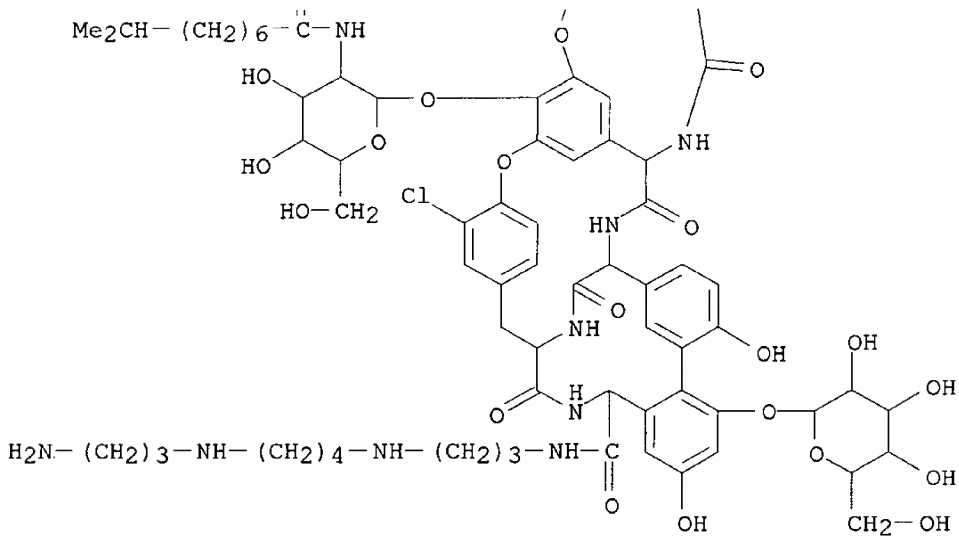
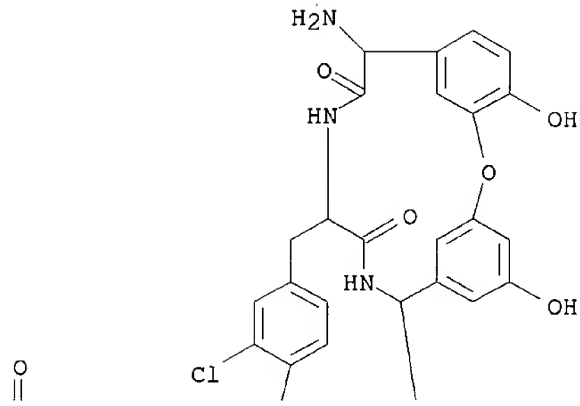


RN 131705-02-7 CAPLUS

CN Ristomycin A aglycone, 38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19,34-dideoxy-56-O-[2-deoxy-2-[(1-oxodecyl)amino]-.beta.-D-glucopyranosyl]-42-O-.alpha.-D-mannopyranosyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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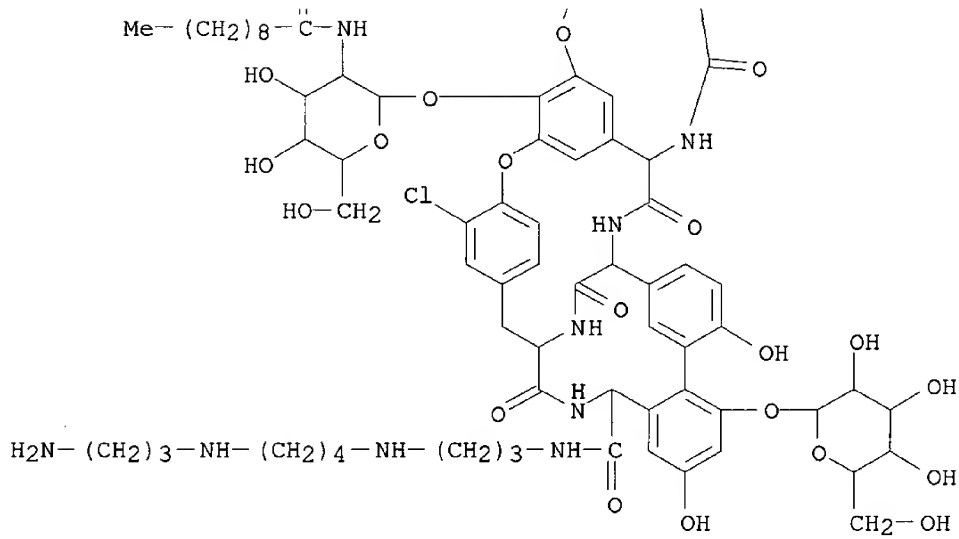
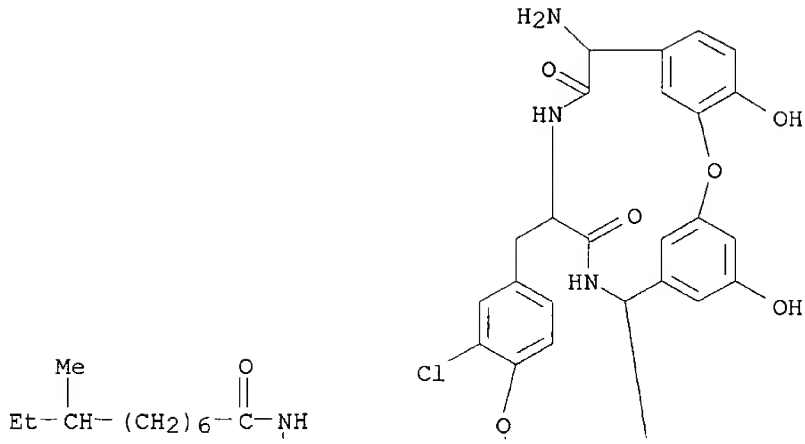


RN 131705-03-8 CAPLUS
CN Ristomycin A aglycone, 38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19,34-dideoxy-56-O-[2-deoxy-2-[(8-methyl-1-oxodecyl)amino]-.beta.-D-glucopyranosyl]-42-O-.alpha.-D-mannopyranosyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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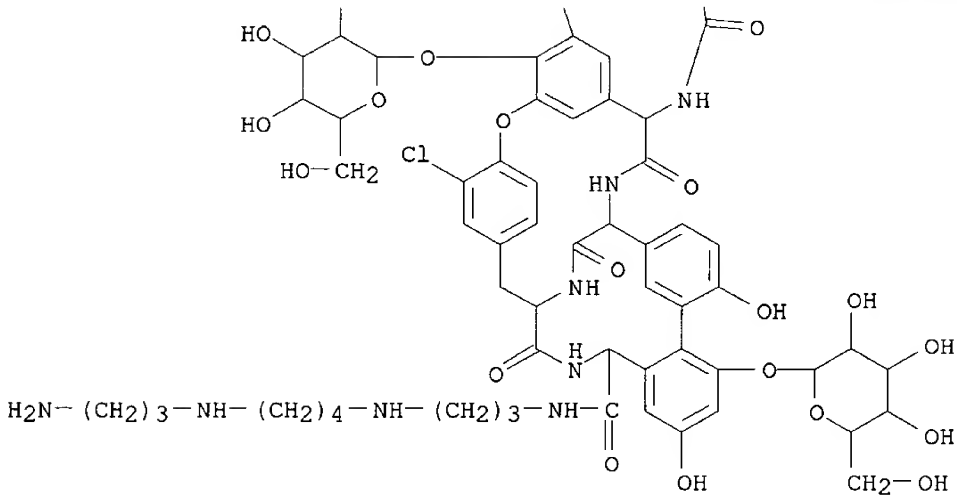
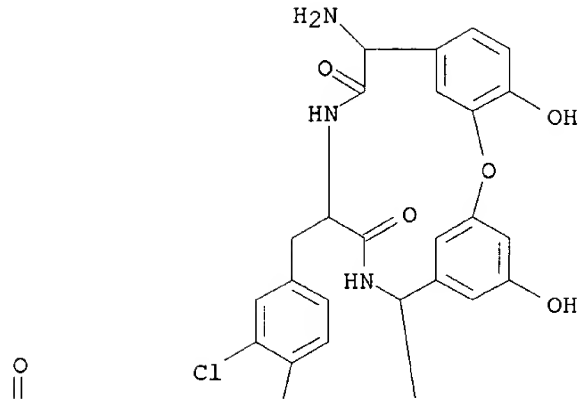


RN 131705-04-9 CAPLUS
CN Ristomycin A aglycone, 38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19,34-dideoxy-56-O-[2-deoxy-2-[(9-methyl-1-oxodecyl)amino]-.beta.-D-glucopyranosyl]-42-O-.alpha.-D-mannopyranosyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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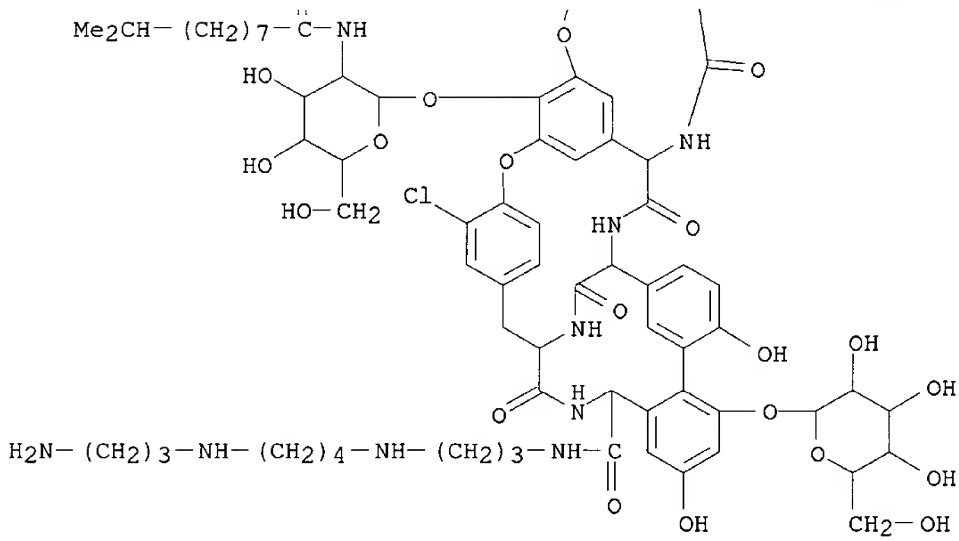
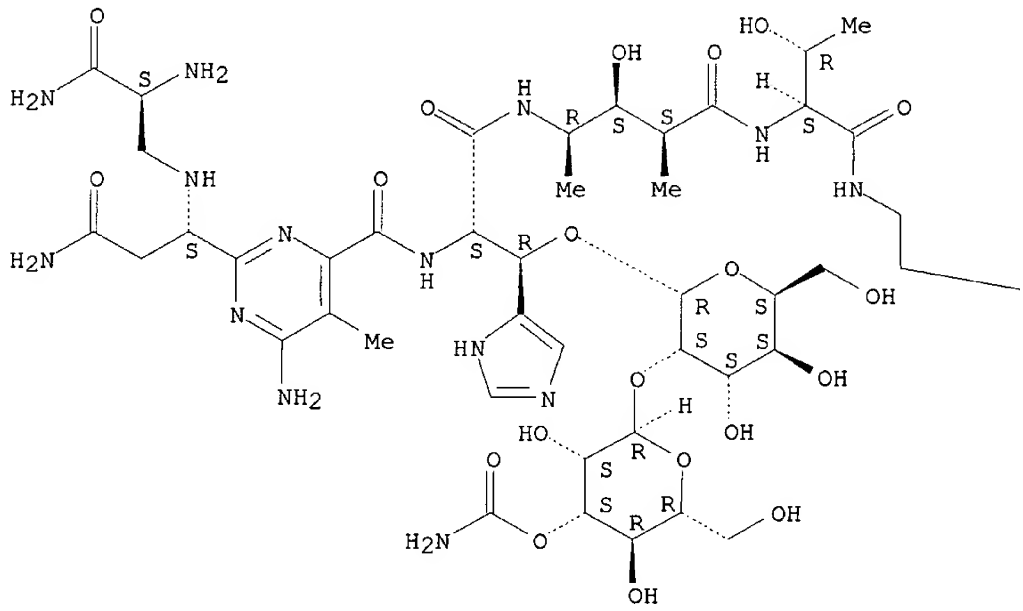


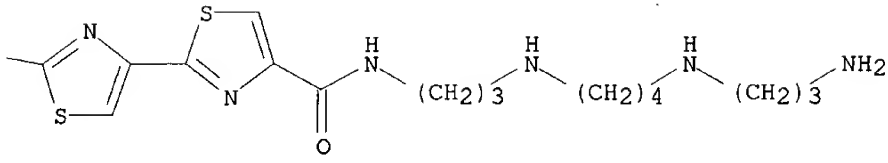
L4 ANSWER 25 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1991:549850 CAPLUS
DN 115:149850
TI Inhibitory effect of bleomycin A6 on human colon cancer xenografts in nude mice
AU Deng, Yongchuan; Zhen, Yongsu; Zheng, Shu; Xue, Yuchuan
CS Inst. Med. Biotechnol., Chin. Acad. Sci., Beijing, Peop. Rep. China

SO Zhongguo Yixue Kexueyuan Xuebao (1990), 12(5), 335-40
CODEN: CIHPDR; ISSN: 1000-503X
DT Journal
LA Chinese
AB Bleomycin A6 was found to be highly active against established human cancer cell lines derived from colon cancer (HT-29) and cecum cancer (Hce-8693), as evaluated by clonogenic assay. These human cancer cells were serially transplanted in nude mice. At a tolerable dosage level, bleomycin A6 exerted remarkable growth inhibition on human colon cancer HT-29 and cecum cancer Hce-8693 xenografts (approx. 90% inhibition). No histopathol. changes were found in the organs of treated animals. Compared on the basis of equitoxic doses (1/9 LD50), bleomycin A6 exerted much stronger growth inhibition against colon cancer HT-29 xenografts in nude mice than 5-fluorouracil and mitomycin C, with inhibition rates of 82%, 12% and 53%, resp. More extensive necrosis was found in tumors treated with bleomycin A6 than in those treated with mitomycin C or 5-fluorouracil. The ratio values of non-necrotic tumor tissue to whole tumor tissue for bleomycin A6, mitomycin C, and 5-fluorouracil were 0.33, 0.65, and 0.57, resp. These observations indicate that bleomycin A6 is a potent antitumor agent against colon cancer xenografts and may be useful in human colon cancer chemotherapy.
IT **37293-17-7**, Bleomycin A6
RL: BIOL (Biological study)
(human colon cancer xenografts inhibition by)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

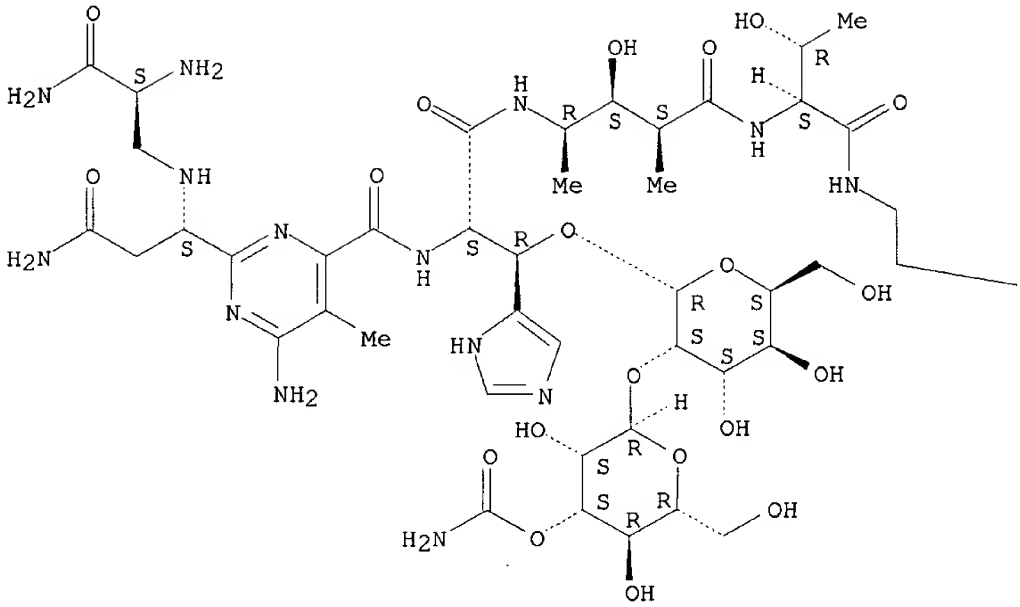




L4 ANSWER 26 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1991:526572 CAPLUS
Correction of: 1991:240093
DN 115:126572
Correction of: 114:240093
TI Preclinical toxicity studies of boanmycin
AU Lin, Futian; Soug, Kungai; Xu, Jiaqi; Yu, Feng; Xue, Yuchuan; Zhen, Yongsu
CS Inst. Med. Biotechnol., Chin. Acad. Med. Sci., Beijing, 100050, Peop. Rep. China
SO Zhongguo Kangshengsu Zazhi (1990), 15(6), 453-5
CODEN: ZKZAEY
DT Journal
LA Chinese
AB The acute and subacute toxicity of boanmycin was studied in mice and dogs, resp. The mutagenicity and teratogenicity of this agent were also studied in mice. The toxic responses were related with the doses of boanmycin and the administration routes. There were no morphol. changes, mutagenesis or teratogenesis from the administration of boanmycin. However, boanmycin induced chromosomal aberration in CHL cells.
IT **37293-17-7**
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(toxicity and mutagenicity and teratogenicity of)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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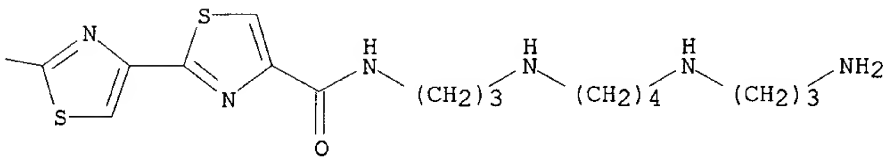


L4 ANSWER 27 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1991:484954 CAPLUS
DN 115:84954
TI Experimental studies on the antitumor activity of monoclonal antibody - bleomycin A6 conjugate against human liver cancer
AU Peng, Z.; Zhen, Y. S.
CS Inst. Med. Biotechnol., Chin. Acad. Med. Sci., Beijing, 100050, Peop. Rep. China
SO Yaoxue Xuebao (1991), 26(5), 331-5
CODEN: YHHPAL; ISSN: 0513-4870
DT Journal
LA Chinese

AB Bleomycin A6 (A6), a single component of bleomycin complex, is highly active against human liver cancer cells in vitro and xenografts in nude mice. A6 was conjugated to monoclonal antibody H111 directed against human hepatoma BEL - 7402 cells, using Dextran T40 as an intermediate. The conjugate consisted of a coupling molar ratio of 1:264 for H111 and A6, and retained 6.3% of A6 activity. As detd. by clonogenic assay with hepatoma BEL - 7402 cells exposed to the agents for 1 h, the IC90 values for H111-A6 conjugate, free A6 and M3-A6 conjugate (an irrelevant conjugate) were 0.17, 17 and 7 .mu.mol/L, resp. The cytotoxicity of Hill-A6 conjugate to target cells was markedly blocked by unconjugated H111 but not by irrelevant monoclonal antibody M3. The H111-A6 conjugate exhibited 78% inhibition on the growth of hepatoma BEL-7402 xenografts in nude mice, whereas the equiv. doses of free A6, M3-A6 conjugate and H111 plus A6 mixt. showed approx. 30% inhibition. Histopathol. examn. showed no toxic changes in the liver, lung, kidney and bone marrow in the H111-A6 conjugate-treated animals. These results suggest that the conjugate of monoclonal antibody and bleomycin A6 exhibits specific cytotoxicity to target liver cancer cells and the conjugate is highly effective against liver cancer xenografts in nude mice with more marked tumor inhibition than free A6 at comparable dose levels.

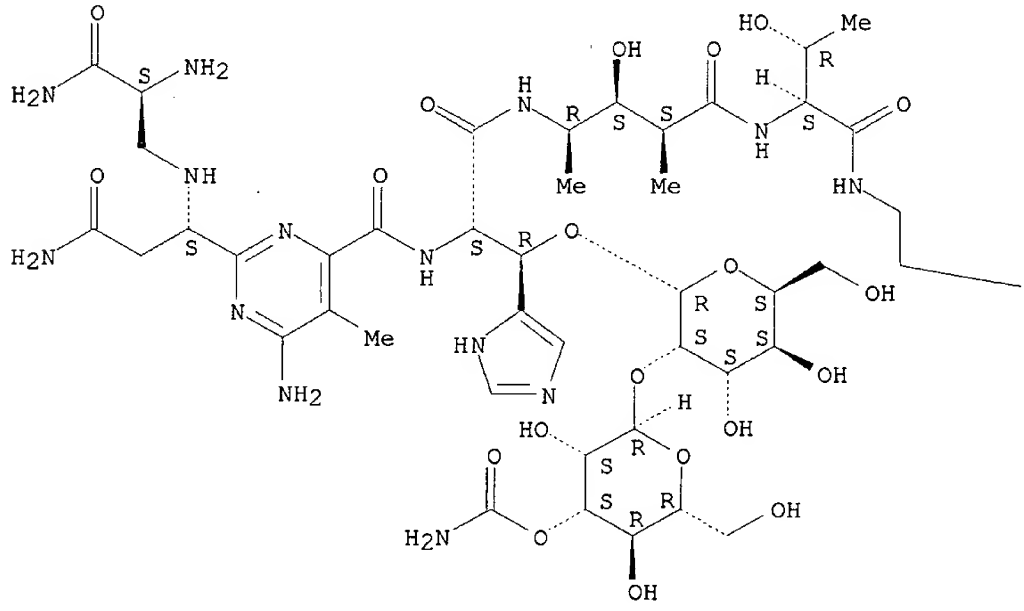
IT **37293-17-7D**, Bleomycin A6, conjugates with monoclonal antibody against human hepatoma
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitumor activity of, against human liver cancer)

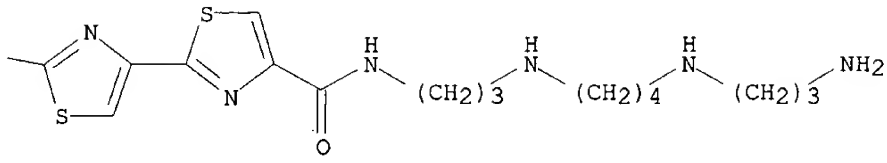
RN 37293-17-7 CAPLUS

CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

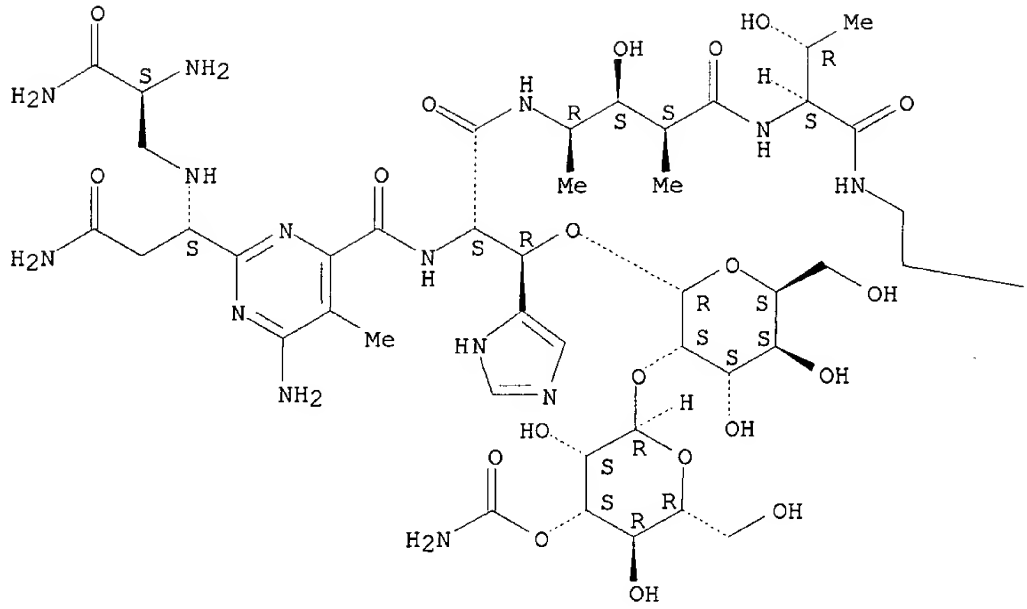




L4 ANSWER 28 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1991:240093 CAPLUS
DN 114:240093
TI Preclinical toxicity studies of boanmycin
AU Lin, Futian; Soug, Kungai; Xu, Jiaqi; Yu, Feng; Xue, Yuchuan; Zhen, Yongsu
CS Inst. Med. Biotechnol., Chin. Acad. Med. Sci., Beijing, 100050, Peop. Rep. China
SO Kangshengsu (1990), 15(6), 453-5
CODEN: KANGDS; ISSN: 0254-6116
DT Journal
LA Chinese
AB The acute and subacute toxicity of boanmycin was studied in mice and dogs, resp. The mutagenicity, teratogenicity of this agent were also studied in mice. The toxic responses were related with the doses of boanmycin and the administration routes. There were no morphol. changes, mutagenesis or teratogenesis from the administration of boanmycin. However, boanmycin induced chromosomal aberration in CHL cells.
IT **37293-17-7**, Boanmycin
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(toxicity and mutagenicity and teratogenicity of)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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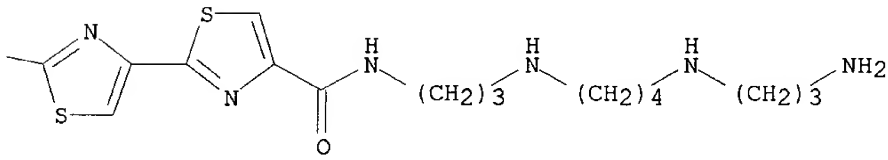

L4 ANSWER 29 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1991:229395 CAPLUS
DN 114:229395
TI Preparation of new substituted alkylamide derivatives of teicoplanin as antibacterials
IN Malabarba, Adriano; Seneci, Pierfausto; Kettenring, Juergen Kurt; Ciabatti, Romeo
PA Gruppo Lepetit S.p.A., Italy
SO PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| PI | WO 9011300 | A1 | 19901004 | WO 1990-EP400 | 19900313 |
| | W: AU, CA, FI, HU, JP, KR, NO, SU, US | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE | | | | |
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| | ZA 9001881 | A | 19901228 | ZA 1990-1881 | 19900312 |
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| | AU 638977 | B2 | 19930715 | | |
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| | HU 58350 | A2 | 19920228 | HU 1990-2355 | 19900313 |
| | HU 217074 | B | 19991129 | | |
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| | RU 2078768 | C1 | 19970510 | RU 1990-5001791 | 19900313 |
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| | | | | WO 1990-EP400 | 19900313 |
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| | | | | EP 1989-105525 | 19890329 |
| | | | | WO 1990-EP400 | 19900313 |
| | US 5500410 | A | 19960319 | US 1995-461208 | 19950605 |
| | | | | EP 1989-105525 | 19890329 |
| | | | | US 1991-761806 | 19910920 |
| | | | | US 1994-263160 | 19940620 |

OS MARPAT 114:229395

AB The title compds. [I; R = H, protecting group; Y = NR1X1(XX2)p(TX3)qW; R1 = H, alkyl; T, X = O, (substituted) imino; X1, X2, X3 = C2-10 alkylene; W = OH, amino; p = 1-50; q = 0-12; A = H, N-acylated .beta.-D-2-deoxy-2-aminoglucopyranosyl; B = H, N-acetyl-.beta.-D-2-deoxy-2-aminoglucopyranosyl; M = H, .alpha.-D-mannopyranosyl; B = H only when both A, M = H], were prepd. Thus, teicoplanin A1 component 2 in ET3N/DMF was treated with PhCH2O2CCl in acetone to give .apprx.96% of the N-15 CBZ deriv. This was esterified with ClCH2CN in DMF/Et3N in .apprx.98% yield and the ester was treated with H2N(CH2)2NH(CH2)2NH2 in DMF followed by hydrogenolysis to give I [A = N-(8-methylnonanoyl)-.beta.-D-2-deoxy-2-aminoglucopyranosyl, B = N-acetyl-.beta.-D-2-deoxy-2-aminoglucopyranosyl,

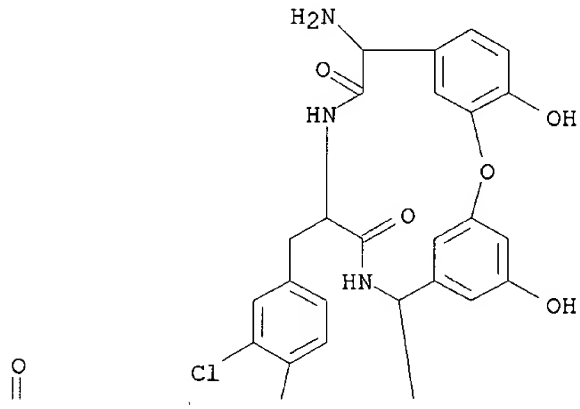
M = .alpha.-D-mannopyranosyl, Y = H2NCH2CH2NHCH2CH2NH, R = H] (II). II had an ED50 of 0.09 mg/kg s.c. against Streptomyces pyrogenes C203 in mice. Several I were active against multi-resistant Pseudomonas aeruginosa with MIC of 4-128 .mu.g/mL.

IT **133236-15-4P 133236-16-5P 133236-17-6P 133236-18-7P 133236-25-6P 133236-48-3P 133274-54-1P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of, as antibacterial)

RN 133236-15-4 CAPLUS

CN Ristomycin A aglycone, 34-O-[2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]-38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19-deoxy-56-O-[2-deoxy-2-[(8-methyl-1-oxononyl)amino]-.beta.-D-glucopyranosyl]-42-.alpha.-D-mannopyranosyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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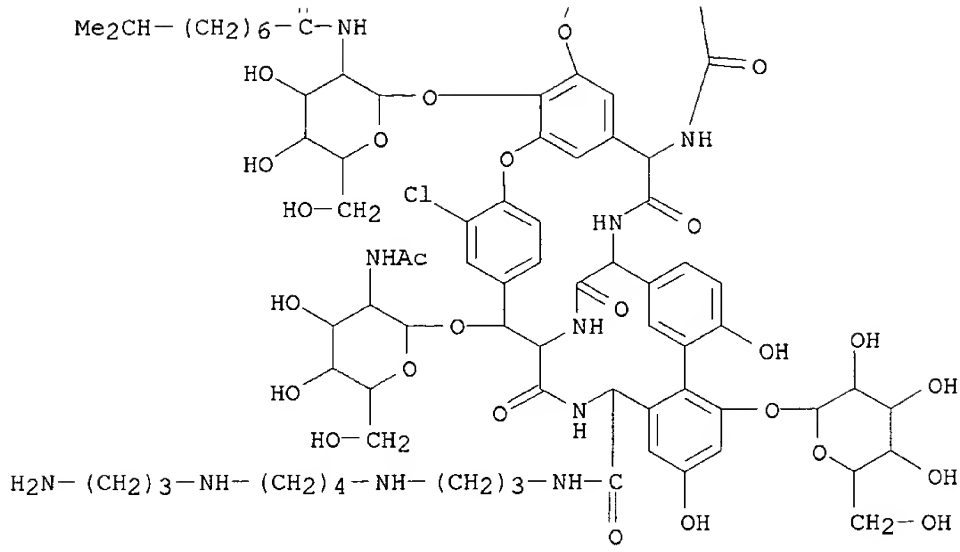
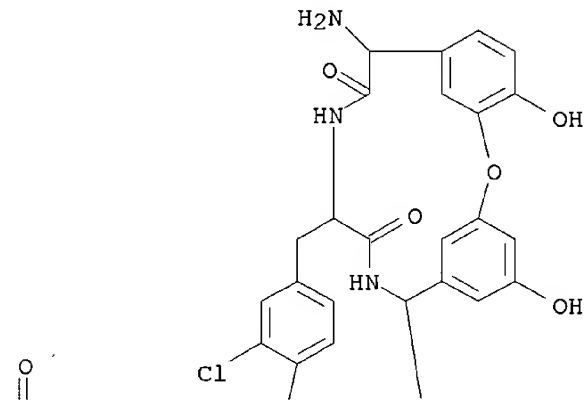


RN 133236-16-5 CAPLUS
CN Ristomycin A aglycone, 34-O-[2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]-38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19-deoxy-56-O-[2-deoxy-2-[(1-oxodecyl)amino]-.beta.-D-glucopyranosyl]-42-O-.alpha.-D-mannopyranosyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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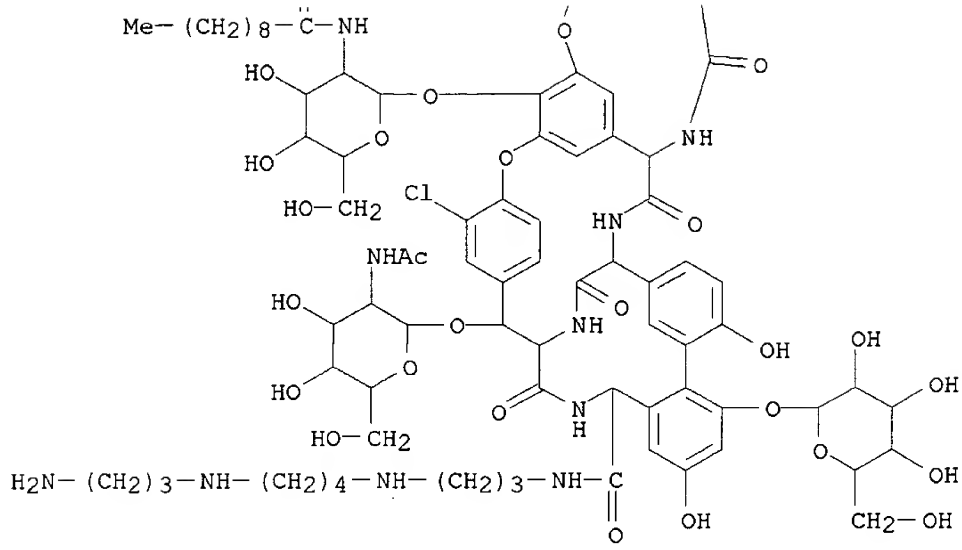
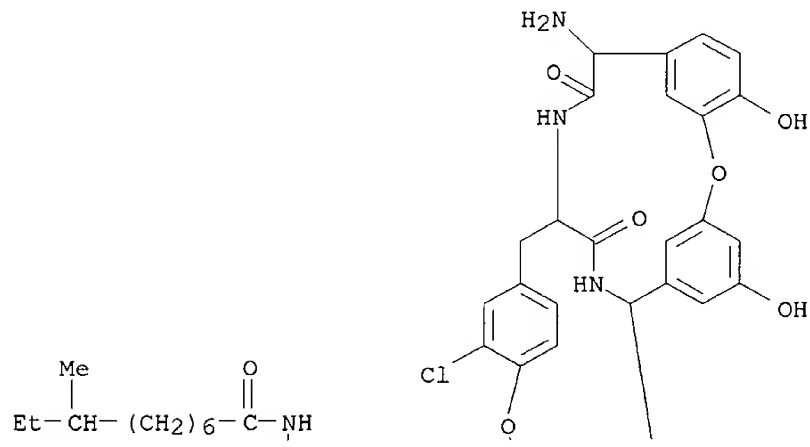


RN 133236-17-6 CAPLUS
CN Ristomycin A aglycone, 34-O-[2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]-38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19-deoxy-56-O-[2-deoxy-2-[(8-methyl-1-oxodecyl)amino]-.beta.-D-glucopyranosyl]-42-O-.alpha.-D-mannopyranosyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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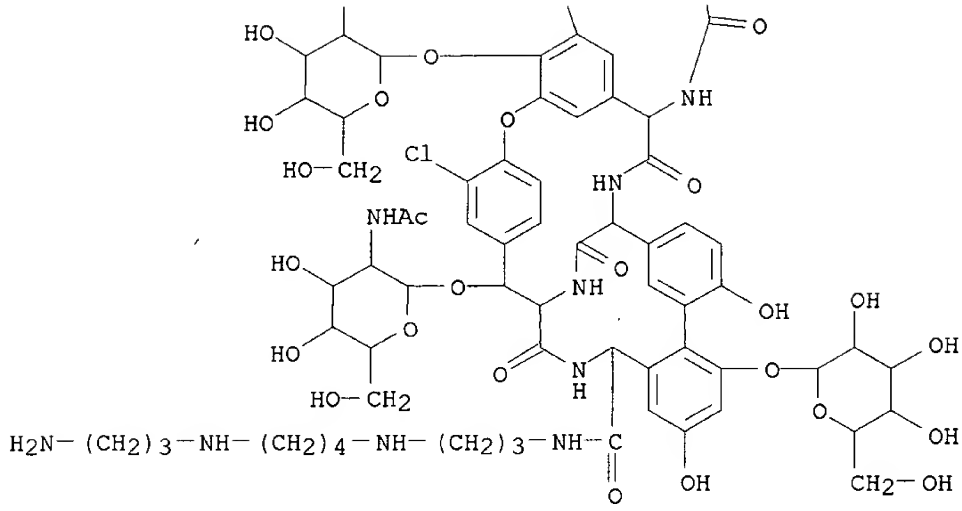
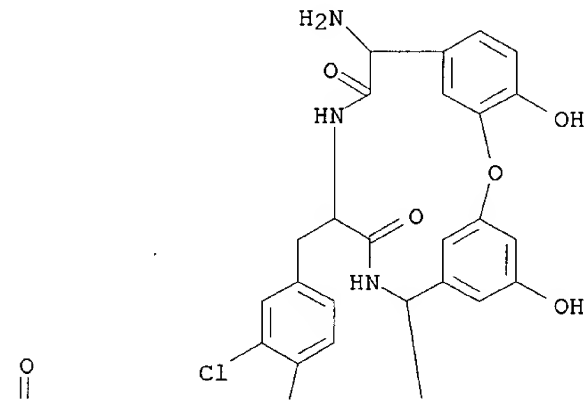
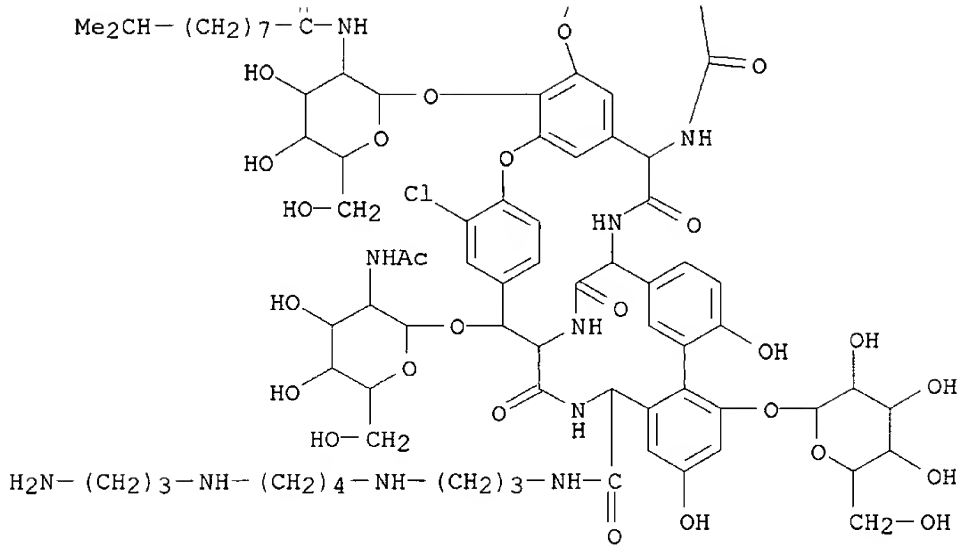


RN 133236-18-7 CAPLUS
CN Ristomycin A aglycone, 34-O-[2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]-38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19-deoxy-56-O-[2-deoxy-2-[(9-methyl-1-oxodecyl)amino]-.beta.-D-glucopyranosyl]-42-O-.alpha.-D-mannopyranosyl- (9CI) (CA INDEX NAME)

PAGE 1-A

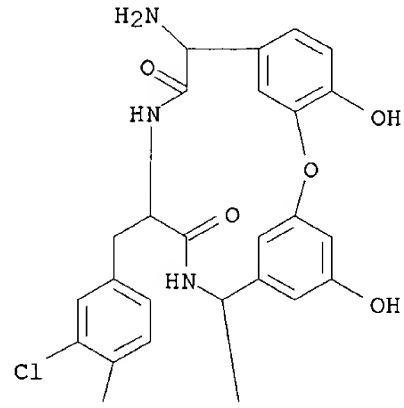


PAGE 2-A



RN 133236-25-6 CAPLUS
CN Ristomycin A aglycone, 38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19-deoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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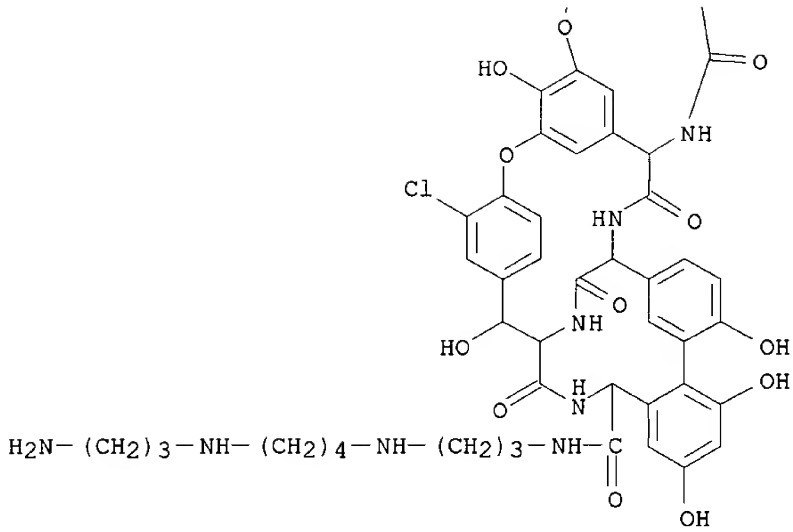
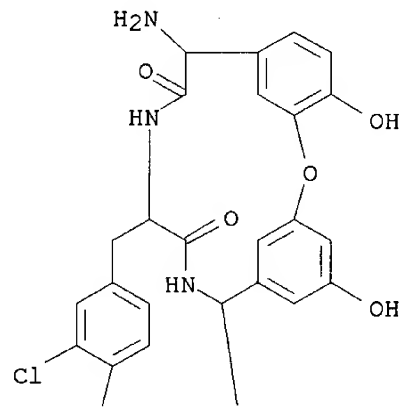
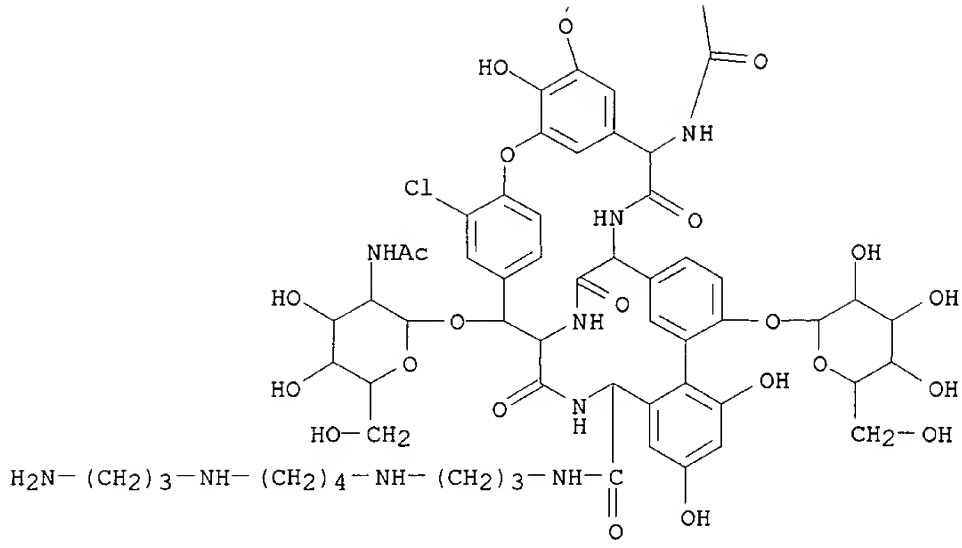


RN 133236-48-3 CAPLUS
CN Ristomycin A aglycone, 34-O-[2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]-38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19-deoxy-42-O-.alpha.-D-mannopyranosyl- (9CI) (CA INDEX NAME)

PAGE 1-A

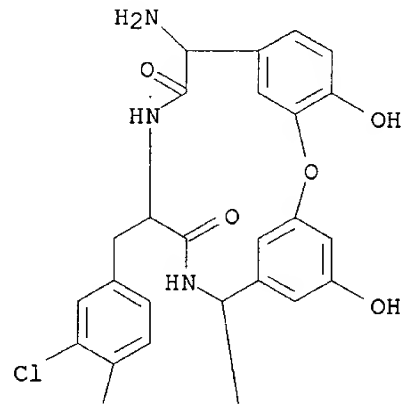


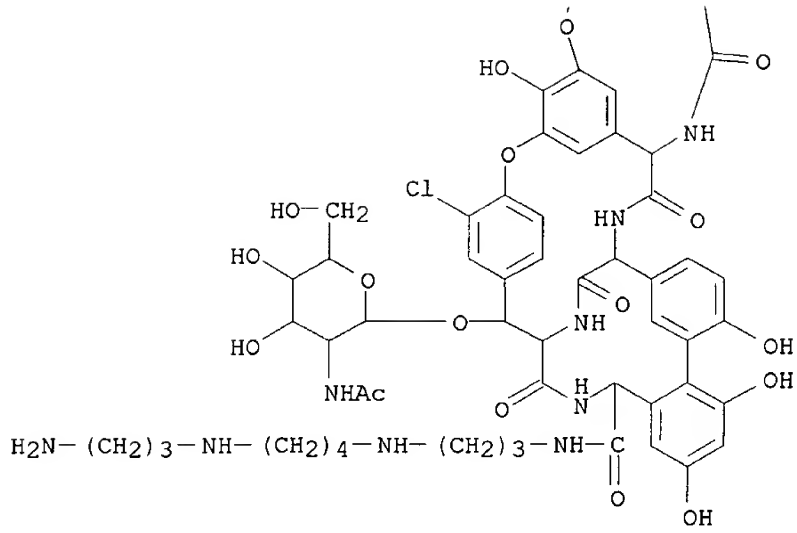
PAGE 2-A



RN 133274-54-1 CAPLUS
CN Ristomycin A aglycone, 34-O-[2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl]-38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19-deoxy- (9CI) (CA INDEX NAME)

PAGE 1-A






L4 ANSWER 30 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1991:82558 CAPLUS
DN 114:82558
TI Preparation of C63-amide derivatives of 34-de(acetylglucosaminyl)-34-deoxy-teicoplanins as antibacterials
IN Malabarba, Adriano; Kettenring, Juergen Kurt
PA Gruppo Lepetit S.p.A., Italy
SO Eur. Pat. Appl., 29 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | EP 376041 | A2 | 19900704 | EP 1989-122874 | 19891212 |
| | EP 376041 | A3 | 19911113 | | |
| | EP 376041 | B1 | 19960228 | | |
| | R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | | | | EP 1988-121708 | 19881227 |
| | AT 134646 | E | 19960315 | AT 1989-122874 | 19891212 |
| | | | | EP 1988-121708 | 19881227 |
| | ES 2083374 | T3 | 19960416 | ES 1989-122874 | 19891212 |
| | | | | EP 1988-121708 | 19881227 |
| | DK 8906404 | A | 19900628 | DK 1989-6404 | 19891218 |
| | DK 171404 | B1 | 19961014 | | |
| | | | | EP 1988-121708 | 19881227 |
| | NO 8905123 | A | 19900628 | NO 1989-5123 | 19891219 |
| | NO 178664 | B | 19960129 | | |
| | NO 178664 | C | 19960508 | | |
| | | | | EP 1988-121708 | 19881227 |
| | AU 8946984 | A1 | 19900705 | AU 1989-46984 | 19891219 |
| | AU 629883 | B2 | 19921015 | | |
| | | | | EP 1988-121708 | 19881227 |
| | ZA 8909772 | A | 19910130 | ZA 1989-9772 | 19891220 |
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| | HU 53376 | A2 | 19901028 | HU 1989-6772 | 19891222 |
| | HU 209939 | B | 19941228 | | |
| | | | | EP 1988-121708 | 19881227 |
| | FI 91076 | B | 19940131 | FI 1989-6199 | 19891222 |
| | FI 91076 | C | 19940510 | | |
| | | | | EP 1988-121708 | 19881227 |
| | RU 2068418 | C1 | 19961027 | RU 1989-4742809 | 19891226 |
| | | | | EP 1988-121708 | 19881227 |
| | CN 1043941 | A | 19900718 | CN 1989-109576 | 19891227 |
| | | | | EP 1988-121708 | 19881227 |
| | JP 02221298 | A2 | 19900904 | JP 1989-336811 | 19891227 |
| | | | | EP 1988-121708 | 19881227 |
| | US 5194424 | A | 19930316 | US 1992-887121 | 19920520 |
| | | | | EP 1988-121708 | 19881227 |
| | | | | US 1989-453649 | 19891220 |
| | | | | EP 1990-110102 | 19900528 |
| | | | | US 1990-544719 | 19900627 |

PATENT FAMILY INFORMATION:

FAN 1992:524474

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | EP 460448 | A2 | 19911211 | EP 1991-108165 | 19910521 |
| | EP 460448 | A3 | 19920429 | | |
| | EP 460448 | B1 | 19951004 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | | | | EP 1990-110102 | 19900528 |
| | AU 9177203 | A1 | 19911128 | AU 1991-77203 | 19910520 |
| | AU 647122 | B2 | 19940317 | | |
| | | | | EP 1990-110102 | 19900528 |
| | AT 128626 | E | 19951015 | AT 1991-108165 | 19910521 |
| | | | | EP 1990-110102 | 19900528 |
| | IL 98211 | A1 | 19961016 | IL 1991-98211 | 19910522 |
| | | | | EP 1990-110102 | 19900528 |
| | JP 04235187 | A2 | 19920824 | JP 1991-148092 | 19910524 |
| | | | | EP 1990-110102 | 19900528 |
| | ZA 9103987 | A | 19920429 | ZA 1991-3987 | 19910527 |
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| | | | | EP 1988-121708 | 19881227 |
| | | | | US 1989-453649 | 19891220 |
| | | | | EP 1990-110102 | 19900528 |
| | | | | US 1990-544719 | 19900627 |

OS MARPAT 114:82558

AB The title compds. [I; A = alkanoyl, N-(aliph. acyl)-.beta.-D-2-deoxy-2-aminoglucopyranosyl; B = H, protecting group; M = .alpha.-D-mannopyranosyl; Y = NR[(CH2)mNR1]n-X-[(CH2)kNR2]h-(CH2)p-NR3R4; R, R1, R2 = H, alkyl; R3, R4 = H, (substituted) alkyl; or NR3R4 = heterocyclyl; m, k, p = 2-8 integer; n, h = 0, 1-4 integer; X = bond, Q; r, s = 1-6 integer; X1 = N, CH] and their addn. salts were prepd. A single teicoplanin or a mixt. of teicoplanins I [A = alkanoyl, N-(aliph. acyl)-.beta.-D-2-deoxy-2-aminoglucopyranosyl; Y = OH; B = H; M = .alpha.-D-mannopyranosyl] in DMF contg. Et3N were treated with PhCH2O2CCl and ClCH2CN to give crude C63-cyanomethyl esters of N15-(benzyloxycarbonyl)teicoplanins, which were treated with the appropriate amines in DMF to give the appropriate N15-(benzyloxycarbonyl) derivs. of C63-amides, which were hydrogenolyzed over Pd/C to give the appropriate I

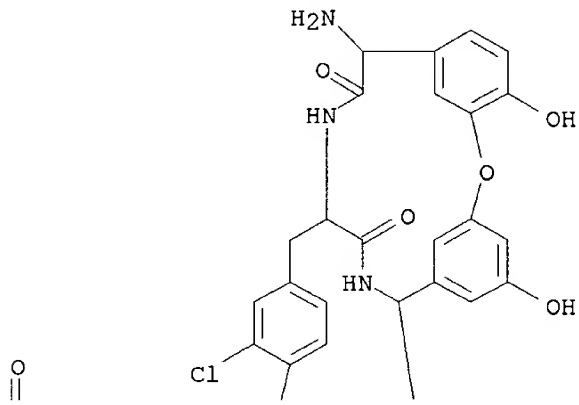
as free bases. [Only a general synthetic procedure is given]. I [Y = NH(CH2)3NMe2, B = H, M = .alpha.-D-mannopyranosyl, A = 8-methylnonanoyl, decanoyl, 8-methyldecanoyl, 9-methyldecanoyl] in vitro had a min. inhibition concn. of 4 .mu.g/mL against Staphylococcus aureus.

IT **131705-01-6P 131705-02-7P 131705-03-8P 131705-04-9P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. of, as antibacterial)

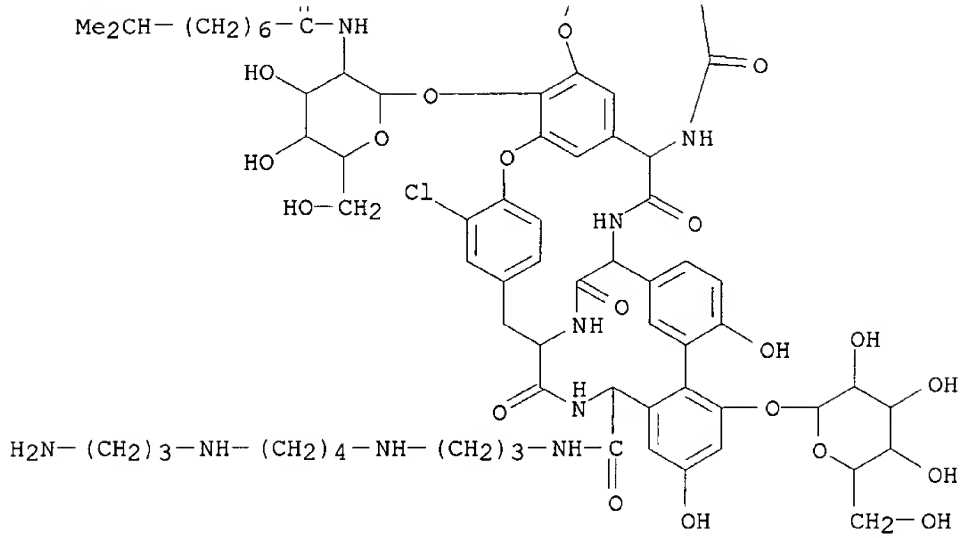
RN 131705-01-6 CAPLUS

CN Ristomycin A aglycone, 38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19,34-dideoxy-56-O-[2-deoxy-2-[(8-methyl-1-oxononyl)amino]-.beta.-D-glucopyranosyl]-42-O-.alpha.-D-mannopyranosyl- (9CI) (CA INDEX NAME)

PAGE 1-A

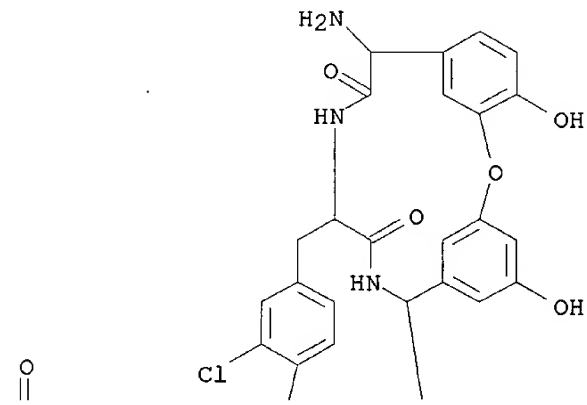


PAGE 2-A

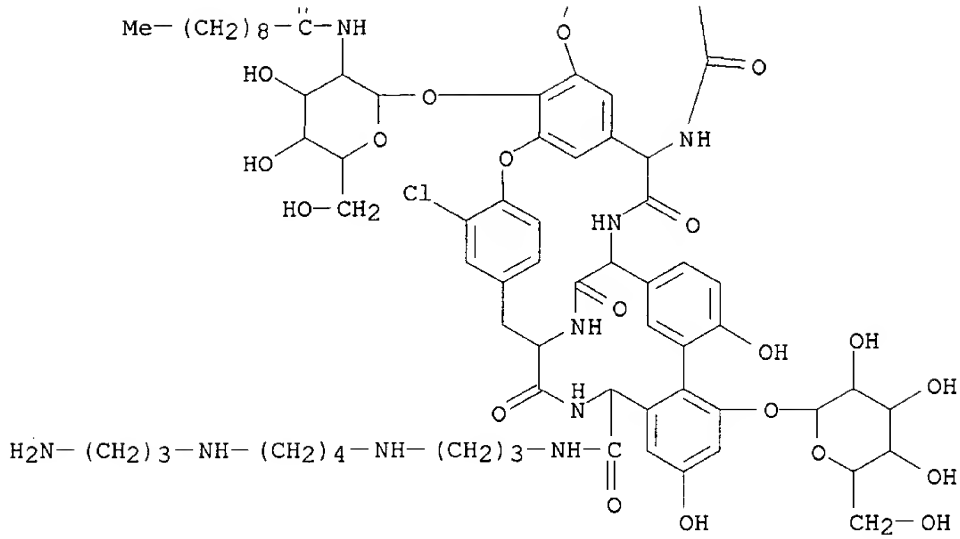


RN 131705-02-7 CAPLUS
CN Ristomycin A aglycone, 38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19,34-dideoxy-56-O-[2-deoxy-2-[(1-oxodecyl)amino]-.beta.-D-glucopyranosyl]-42-O-.alpha.-D-mannopyranosyl- (9CI) (CA INDEX NAME)

PAGE 1-A

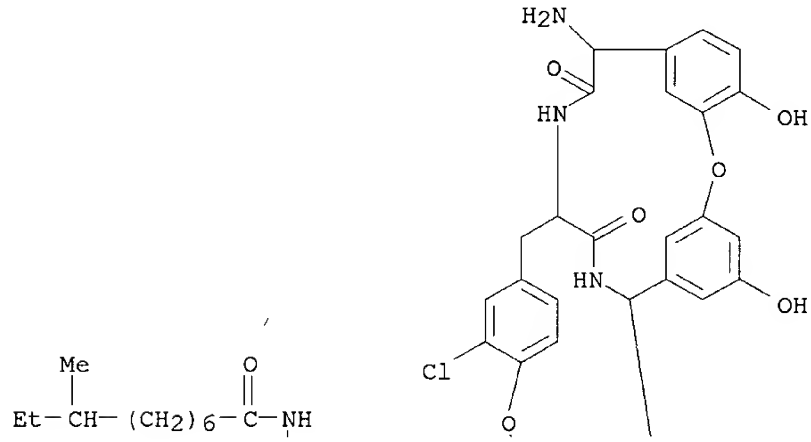


PAGE 2-A



RN 131705-03-8 CAPLUS
CN Ristomycin A aglycone, 38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19,34-dideoxy-56-O-[2-deoxy-2-[(8-methyl-1-oxodecyl)amino]-.beta.-D-glucopyranosyl]-42-O-.alpha.-D-mannopyranosyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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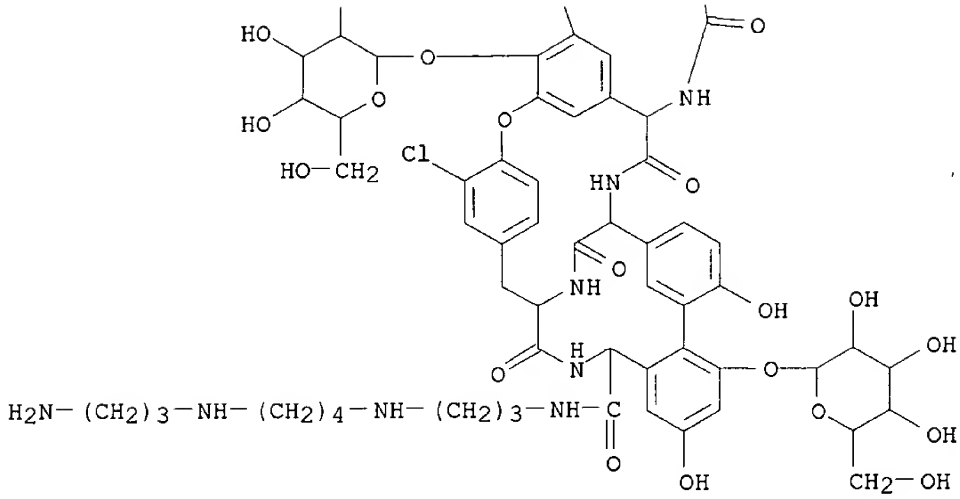
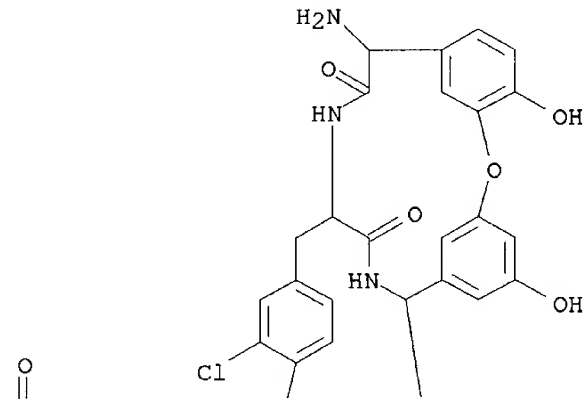


RN 131705-04-9 CAPLUS
CN Ristomycin A aglycone, 38-[[[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]amino]carbonyl]-22,31-dichloro-38-de(methoxycarbonyl)-7-demethyl-19,34-dideoxy-56-O-[2-deoxy-2-[(9-methyl-1-oxodecyl)amino]-.beta.-D-glucopyranosyl]-42-O-.alpha.-D-mannopyranosyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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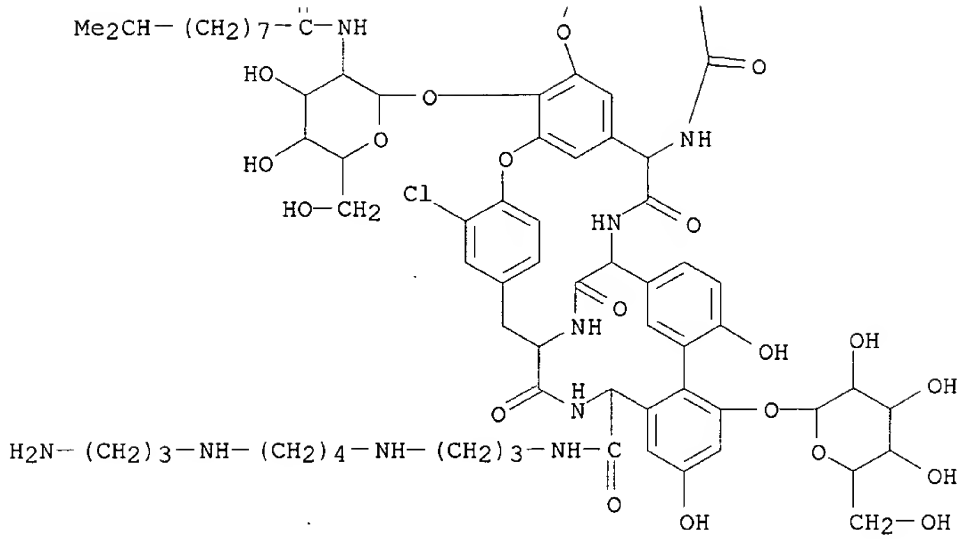
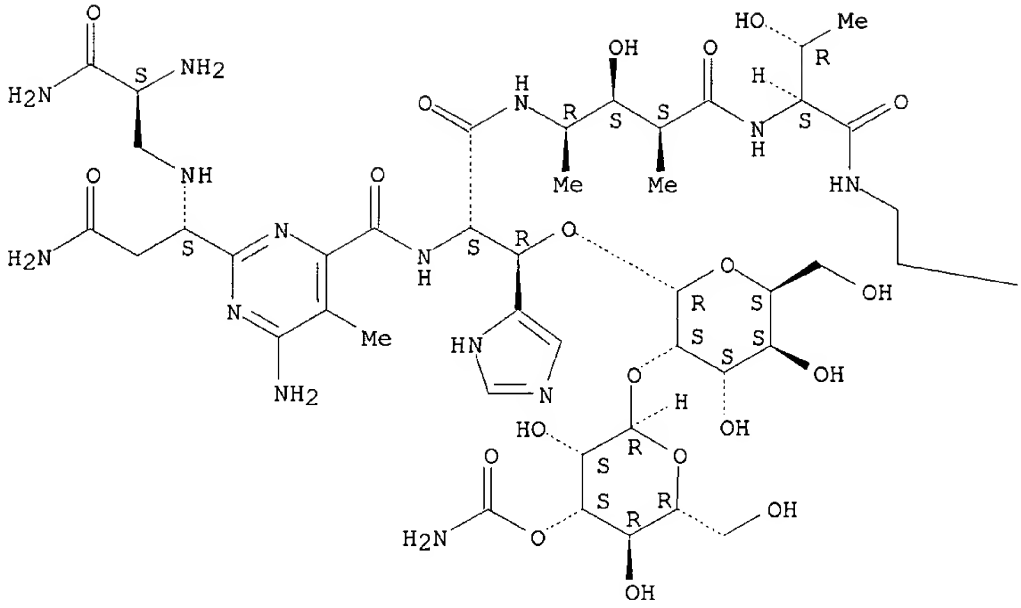


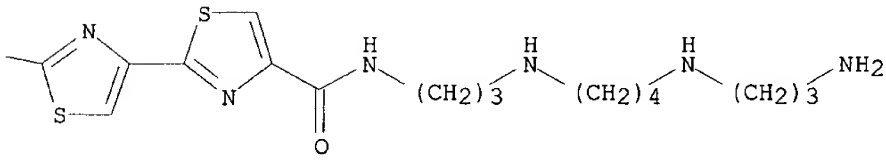
L4 ANSWER 31 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1990:618340 CAPLUS
DN 113:218340
TI HPLC analysis of bleomycin A5
AU Yuan, Wenwei
CS Tianjin Inc. Drug Control, Tianjin, 300070, Peop. Rep. China
SO Yaowu Fenxi Zazhi (1990), 10(4), 219-21
CODEN: YFZADL; ISSN: 0254-1793
DT Journal
LA Chinese
AB Bleomycin A5 samples were detd. by HPLC, using 8% MeCN and 16% MeOH in Na pentane sulfonate buffer as the mobile phase and detection at 254 nm; the av. content was 88.04%, with the coeff. of variation 1.13%.
IT **37293-17-7**, Bleomycin A6
RL: ANT (Analyte); ANST (Analytical study)
(detn. of, by HPLC)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L4 ANSWER 32 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1990:584367 CAPLUS
DN 113:184367
TI An electron-microscopic study on pulmonary toxicity of bleomycin A6 in mice
AU Tian, Peiyu; Huang, Jing; Zhen, Yongsu
CS Inst. Med. Biotechnol., Chin. Acad. Med. Sci., Beijing, 100050, Peop. Rep. China
SO Zhongguo Yaolixue Yu Dulixue Zazhi (1990), 4(3), 221-4
CODEN: ZYYZEW; ISSN: 1000-3002
DT Journal
LA Chinese

AB Bleomycin A6 is effective against a panel of transplantable tumors in mice. It is highly cytotoxic to several human cancer cell lines and exhibits remarkable growth inhibition of human liver cancer xenografts in nude mice. As well known, pulmonary toxicity is the most serious side effect of bleomycin. In the present study, the lung toxicity of bleomycin A6 was compared electron microscopically with that of bleomycin in mice. Both bleomycin A6 and bleomycin were administered i.p. once daily for 10 or 7 dsyd at the dosage of 1/40, 1/20, or 1/10 LD50. The changes in the endothelia of the alveolar capillaries included pseudopodium-like flaps, cytoplasm reticulation, large vacuole and foam-like changes, platelet adhesion, and the formation of microthrombus. Capillaries with the above mentioned changes were counted under the electron microscope. The results showed that the percentage of the injured capillaries elicited by bleomycin A6 was much lower than that by bleomycin, suggesting that bleomycin A6 may be a potential bleomycin-related drug with less pulmonary toxicity.

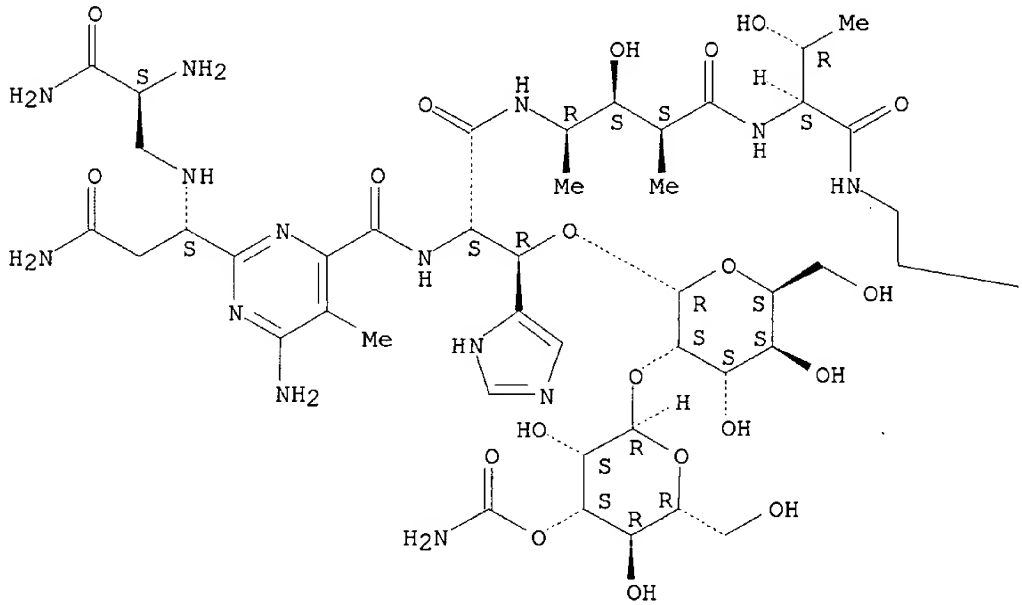
IT **37293-17-7**, Bleomycin A6
RL: BIOL (Biological study)
(lung toxicity of, vs. bleomycin)

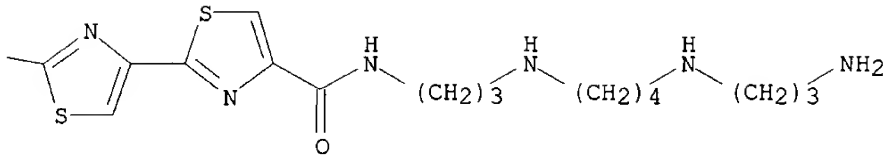
RN 37293-17-7 CAPLUS

CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

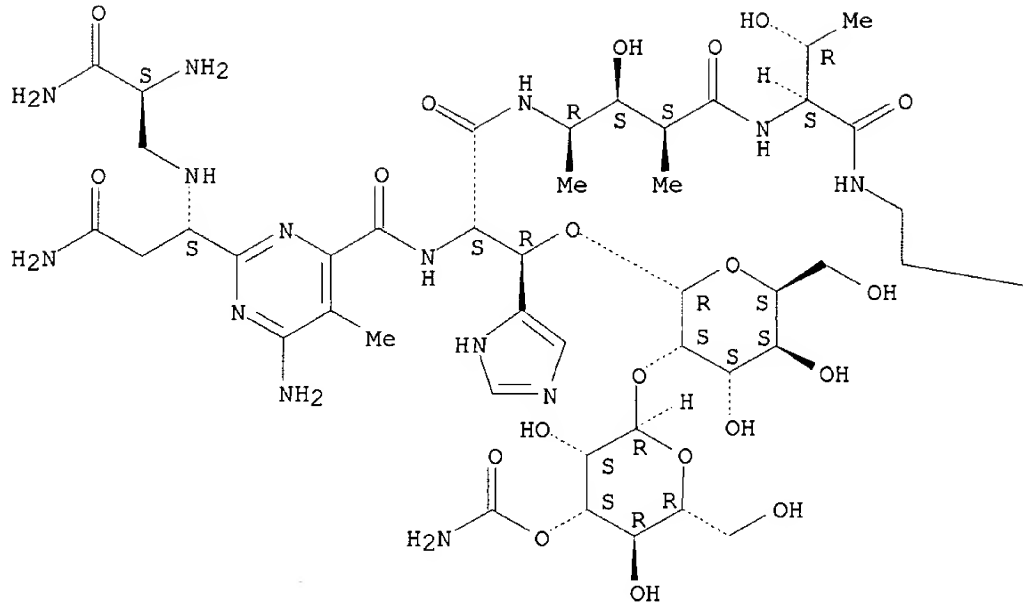




L4 ANSWER 33 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1990:132037 CAPLUS
DN 112:132037
TI Preclinical pharmacologic evaluation of bleomycin A6
AU Lin, Futian; Song, Kungai; Xue, Yuchuan; Zhen, Yongsu
CS Inst. Med. Biotechnol., Chin. Acad. Med. Sci., Beijing, Peop. Rep. China
SO Zhonghua Zhongliu Zazhi (1989), 11(4), 257-9
CODEN: CCLCDY; ISSN: 0253-3766
DT Journal
LA Chinese
AB The toxicity and pharmacokinetics of bleomycin A6 were studied in mice, rats, rabbits, and dogs. The LD50 values in mice were given. Kidney damage and skin ulceration were noted with bleomycin A6 at high dose, and some pharmacokinetic parameters were given.
IT **37293-17-7**, Bleomycin A6
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(pharmacokinetics and toxicity of)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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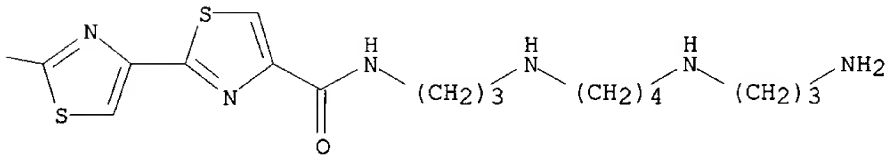


L4 ANSWER 34 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1989:205184 CAPLUS
DN 110:205184
TI Specific binding and internalization of anti-CCT2 monoclonal antibody and bleomycin A6 conjugate in human leukemia cells
AU Tian, P. Y.; Zhang, M. L.; Huang, J.; Yu, B.; Zhen, Y. S.
CS Inst. Med. Biotechnol., Chin. Acad. Med. Sci., Beijing, 100050, Peop. Rep. China
SO Yaoxue Xuebao (1989), 24(1), 16-21
CODEN: YHHPAL; ISSN: 0513-4870
DT Journal

LA Chinese

AB The immunoconjugate of anti-CCT2 monoclonal antibody linked to bleomycin A6 was adsorbed on colloidal gold particles (McAbn-A6-Au). Binding and internalization of McAb-A6-Au particles in human leukemia CEM cells were examd. by electron microscopy. After 60 min at 4.degree., McAb-A6-Au particles were bound to the surface membrane of 78% of CEM cells. Transferring to 37.degree. for 15 min, McAb-A6-Au particles were found to be 56% inside the CEM cells and about one third of the cells contained particles in the nucleus. After 4 h at 37.degree. the percentage of CEM cells contg. McAb-A6-Au particles increased to 72%. However, only 14% of the antigenically irrelevant U937 cells contained these particles and none of them was found in the nucleus. Preincubation with unconjugated anti-CCT2 monoclonal antibody markedly blocked the McAb-A6-Au particle uptake in CEM cells. The McAb-A6-Au particles were internalized through the formation of endocytotic vesicles. In addn., some McAb-A6-Au particles were able to penetrate the plasma membrane directly into cytoplasma and notably into the nucleus. Apparently, the immunoconjugate of monoclonal antibody linked to bleomycin A6 showed selective binding to target cells and entered the cells specifically and rapidly.

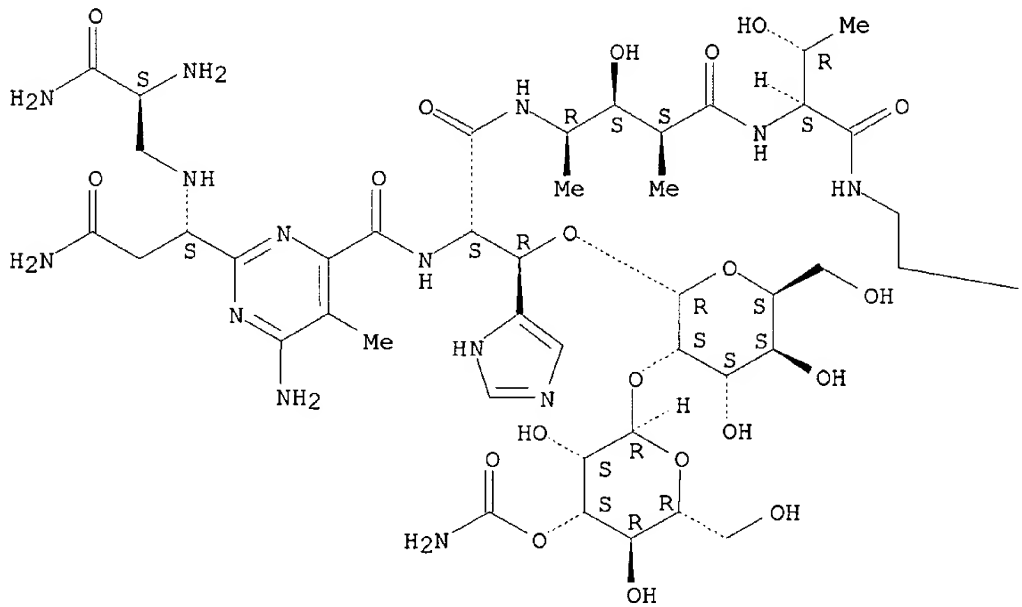
IT **37293-17-7D**, Bleomycin A6, monoclonal antibodies conjugate
RL: BIOL (Biological study)
(binding and internalization of, by leukemia cells of humans)

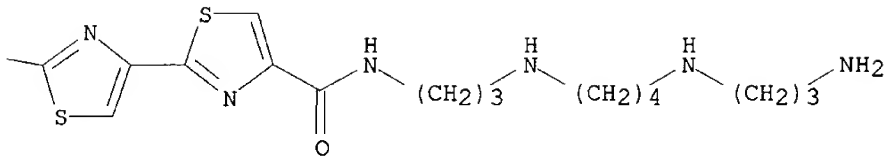
RN 37293-17-7 CAPLUS

CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

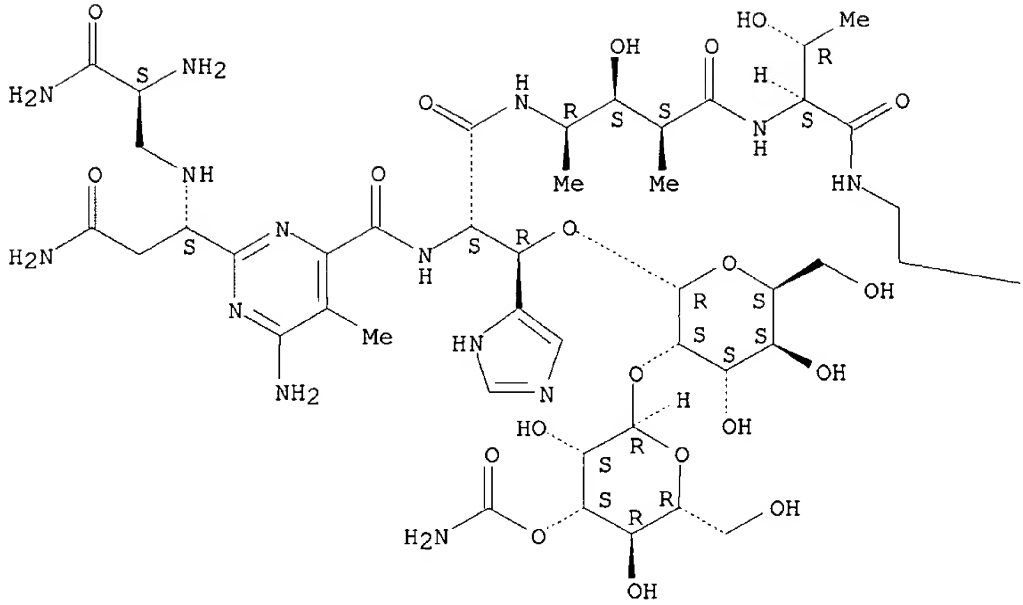




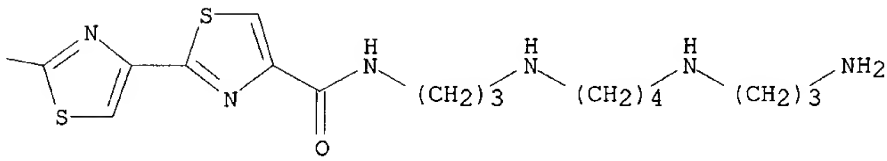
L4 ANSWER 35 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1989:93474 CAPLUS
DN 110:93474
TI Zhengguangmycin A6 and its status in the complex of zhengguangmycins
AU Xu, H. Z.; Dai, L. H.; Zhang, H. Y.; Zhao, G. Y.; Zhang, X. R.; Zhang, G. S.
CS Inst. Med. Biotechnol., Chin. Acad. Med. Sci., Beijing, Peop. Rep. China
SO Yaoxue Xuebao (1988), 23(9), 667-71
CODEN: YHHPAL; ISSN: 0513-4870
DT Journal
LA Chinese
AB Based on physicochem. properties and anal. of spectra, zhengguangmycin A6 was identified as bleomycin A6. As reported in literature, the addn. of a certain amine to the fermn. media increased the ratio of prodn. of the bleomycin which contains the added amine as the terminal moiety. Spermidine (0.36 mg/mL) was very efficiently incorporated into bleomycin A5 and completely suppressed the prodn. of other bleomycins. However, it is an exception for bleomycin A6, which is present in natural bleomycins in only trace amts., even after the addn. of its terminal amine (spermine 0.30 mg/mL) to the fermn. media. But the amt. of zhengguangmycin A6 is different. Under normal conditions the amt. of zhengguangmycin A6 in natural zhengguangmycins is usually over 10%, in some batches, reaching 15% and was the second important component in an amt. next of zhengguangmycin A5 (pingyangmycin). This suggests that the producing strain of zhengguangmycins, Streptomyces verticillus var. pingyangensis is different from that of bleomycin, S. verticillus.
IT **37293-17-7**, Zhengguangmycin A6
RL: PROC (Process)
(properties and structure anal. of, of Streptomyces verticillus)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L4 ANSWER 36 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1988:562792 CAPLUS
DN 109:162792
TI Detection of superoxide and hydroxy radicals formed in bleomycin A6-Fe2+ system by spin trapping
AU Liu, F.; Zhang, Q. G.; Hu, J. G.
CS Inst. Biophys., Acad. Sin., Beijing, Peop. Rep. China
SO Yaoxue Xuebao (1988), 23(6), 411-14
CODEN: YHHPAL; ISSN: 0513-4870
DT Journal
LA Chinese
AB The active radicals produced in the bleomycin A6-Fe2+ system were studied

by combination of spin trapping technique with ESR spectroscopy. The superoxide radicals could be detected by 4-hydroxy-1-sulfoxy-2,2,6,6-tetramethylpiperidine in the above system. The hydroxyl radicals could be trapped by phenyl-N-tert-butylnitrone (PBN) in aq. soln. In accordance with the parameters of ESR spectra of spin adducts of PBN-OH in aq. and MeOH solns., the prodn. of OH- radical was further demonstrated. Antitumor mechanisms are discussed.

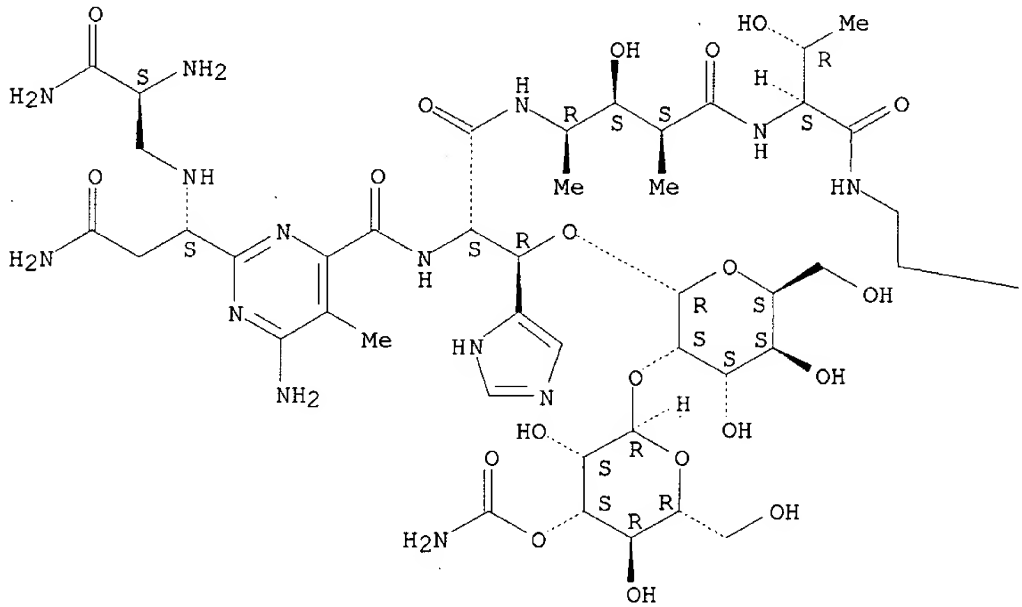
IT **37293-17-7**, Bleomycin A6
RL: BIOL (Biological study)
(system, ferrous ion-, hydroxy and superoxide radicals detection in, by spin trapping)

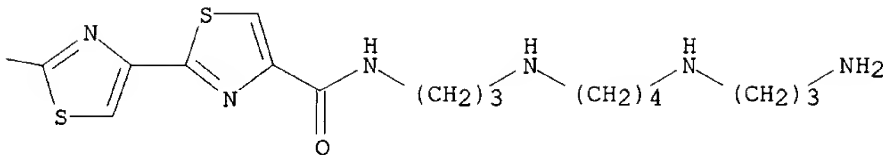
RN 37293-17-7 CAPLUS

CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

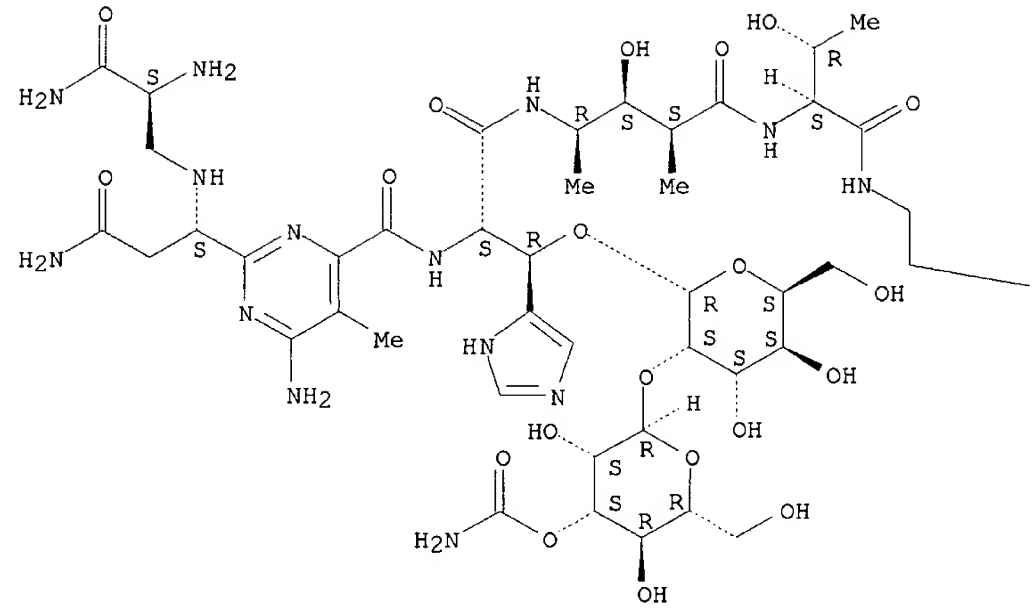




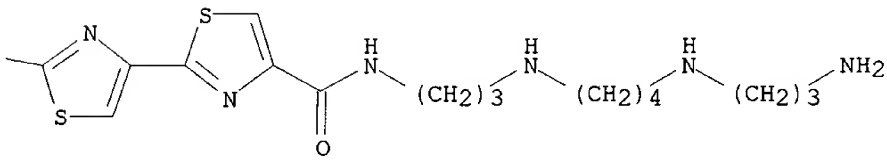
L4 ANSWER 37 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1988:87730 CAPLUS
DN 108:87730
TI Antitumor activity of bleomycin A6 against human liver cancer in cell culture and in nude mice
AU Jiang, Min; Zhen, Yongsu
CS Inst. Med. Biotechnol., Chin. Acad. Med. Sci., Beijing, Peop. Rep. China
SO Yaoxue Xuebao (1987), 22(12), 881-5
CODEN: YHHPAL; ISSN: 0513-4870
DT Journal
LA Chinese
AB Bleomycin A6 was highly active against human nasopharyngeal, stomach, and liver cancer cell lines in vitro, as evaluated by the clonogenic assay. I.p. injection of bleomycin A6 at a tolerable dose also markedly inhibited human liver cancer xenografted in nude mice. Bleomycin A6 may be clin. useful in the treatment of hepatoma.
IT **37293-17-7**, Bleomycin A6
RL: BIOL (Biological study)
(hepatoma of human cell lines in vitro and xenografted in nude mice inhibition by)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L4 ANSWER 38 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1987:95777 CAPLUS
DN 106:95777
TI ESR studies of the selective effect of bleomycin A6 on the membrane of mouse ascites hepatoma cells
AU Liu, Fang; Huang, Ningna; Zhang, Qinggang
CS Inst. Biophys., Acad. Sin., Beijing, Peop. Rep. China
SO Bopuxue Zazhi (1986), 3(4), 331-7
CODEN: BOZAE2
DT Journal
LA Chinese
AB ESR studies indicated that bleomycin A6 [**37293-17-7**] had a

selective effect on the membrane fluidity of mouse ascites hepatoma cells, whereas it had no effect on that of normal marrow and liver cells of mice; the temp. for the phase transition from liq. crystal to liq. state of the malignant cell membrane was decreased by 2.degree., and the change in the membrane fluidity was markedly potentiated by continuous heat at >43.degree..

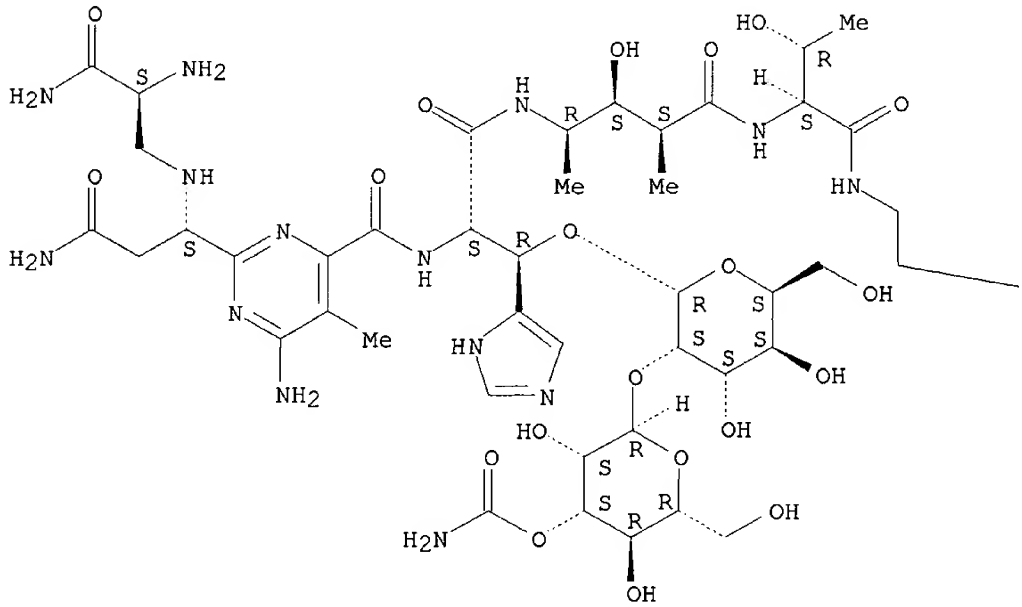
IT **37293-17-7**, Bleomycin A6
RL: BIOL (Biological study)
(hepatoma membrane fluidity response to)

RN 37293-17-7 CAPLUS

CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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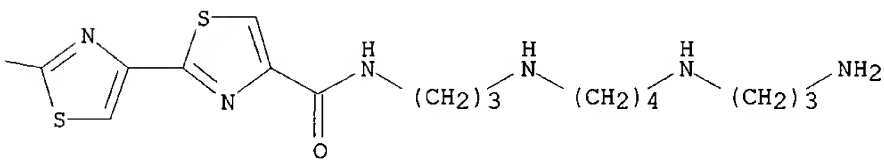
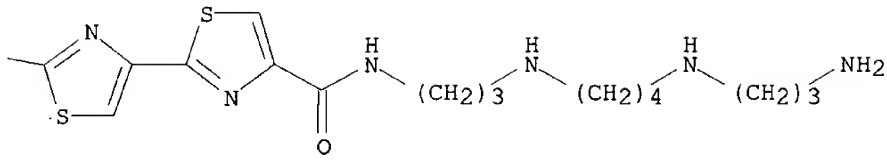
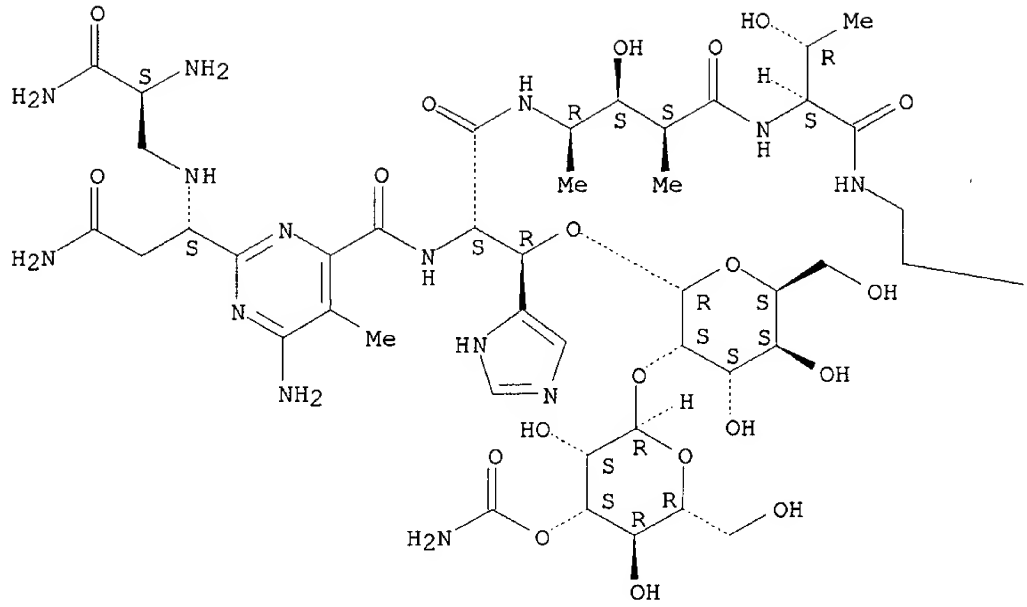




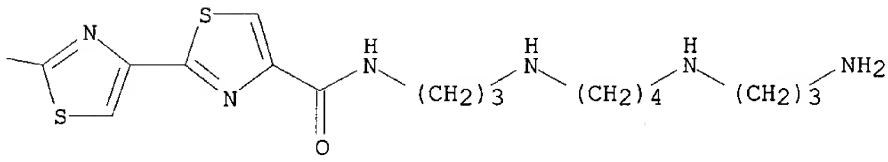
L4 ANSWER 39 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1986:618338 CAPLUS
DN 105:218338
TI Chromosomal aberrations and SCEs produced in cells by three components of pingyangmycin
AU Wang, Qinnan; Fei, Yunbiao; Shen, Guangping; Song, Haiyan
CS Inst. Genet., Acad. Sin., Beijing, Peop. Rep. China
SO Yichuan (1986), 8(2), 28-30
CODEN: ICHUDW; ISSN: 0253-9772
DT Journal
LA Chinese
AB In CHO-K1 cells, 3 components of pingyangmycin, A2 [11116-31-7], A5 [11116-32-8], and A6 [**37293-17-7**], induced chromosomal aberrations in the following order: A6 > A5 > A2. All 3 components also increased sister chromatid exchange (SCE) frequency. Chromosomal aberrations and SCE frequencies were pos. correlated with the concns. of the 3 components.
IT **37293-17-7**
RL: BIOL (Biological study)
(chromosome aberrations and sister chromatid exchange induced by)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L4 ANSWER 40 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1986:199710 CAPLUS
DN 104:199710
TI The difference of sialic acid content between V79 and V79-B1 cells and the effect of zhengguangmycin on cell electrophoretic mobility
AU Hong, Dingming; Hu, Jisheng; Li, Dianjun; Jiang, Ling; Gan, Daqing
CS Inst. Biophys., Acad. Sin., Beijing, Peop. Rep. China
SO Shengwu Huaxue Yu Shengwu Wuli Xuebao (1985), 17(5), 557-61
CODEN: SHWPAU; ISSN: 0582-9879
DT Journal
LA Chinese
AB Higher electrophoretic mobility was obsd. with hamster lung tumor cells

(V79-B1) than the corresponding normal cells (V79), indicating that the tumor cells had a higher net neg. change than the normal cells. The difference in the electrophoretic mobility between the tumor and normal cells disappeared after treatment with zhengguangmycin A2 [11116-31-7], zhengguangmycin A5 [11116-32-8] or zhengguangmycin A6 [**37293-17-7**]. Treatment of the tumor and normal cells with neuraminidase decreased the electrophoretic mobility of both; however, the decrease was greater in the tumor cells than in the normal cells, so that the difference in the electrophoretic mobility between the tumor and normal cells was absent after treatment with neuraminidase. Apparently, membranes of both V79 and V79-B1 cells contain sialic acid, and the greater electrophoretic mobility of the tumor cells is due mainly to the content of sialic acid's being higher in the tumor cells than in the normal cells.

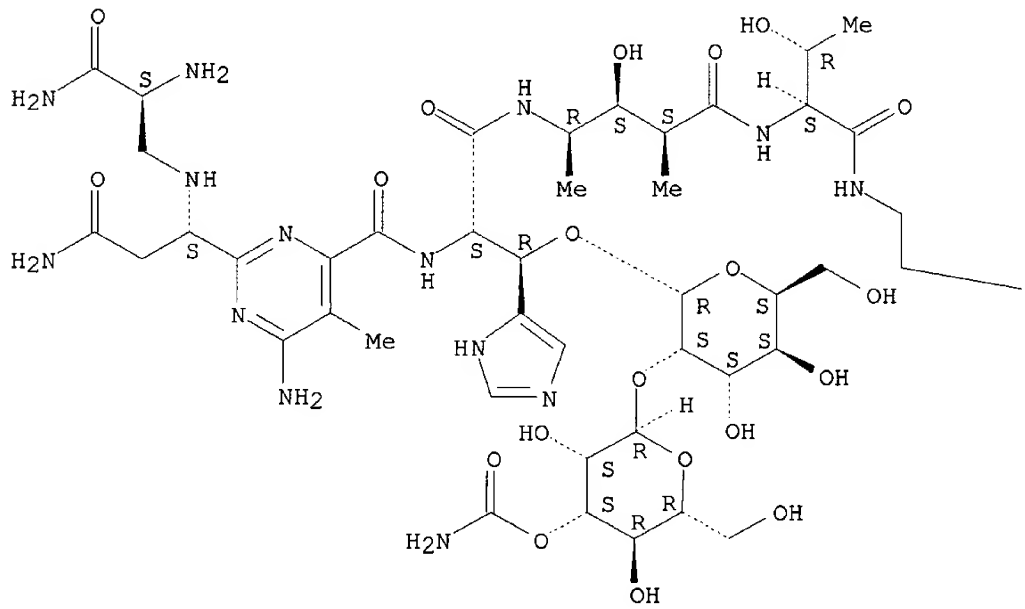
IT **37293-17-7**
RL: BIOL (Biological study)
(lung neoplasm cells electrophoretic mobility response to, sialic acid in relation to)

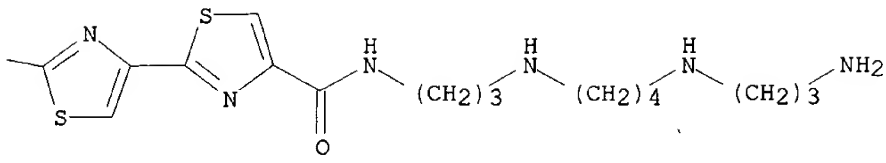
RN 37293-17-7 CAPLUS

CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

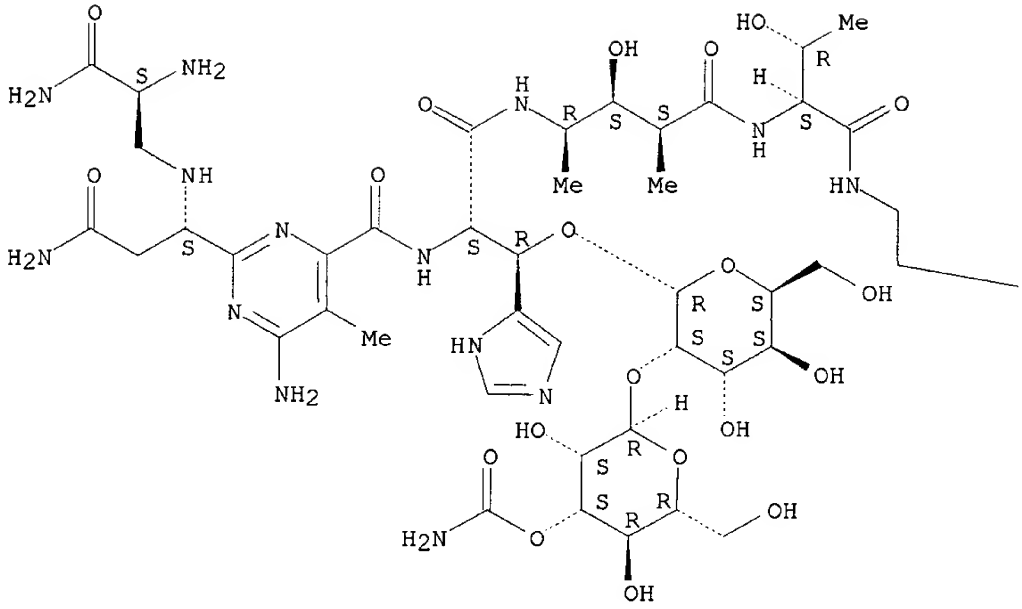




L4 ANSWER 41 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1986:28539 CAPLUS
DN 104:28539
TI Studies on the antitumor effect of bleomycin A6
AU Li, Diandong; Hu, Jishen; Yu, Bin
CS Inst. Antibiot., Chin. Acad. Med. Sci., Beijing, Peop. Rep. China
SO Kangshengsu (1985), 10(5), 312-15
CODEN: KANGDS; ISSN: 0254-6116
DT Journal
LA Chinese
AB Bleomycin A6 [**37293-17-7**] markedly inhibited the growth of sarcoma 180, Ehrlich ascites carcinoma (solid type), esophageal carcinoma SGA-73, and Harding-Passey melanoma in mice, the inhibition being 85-90. Bleomycin A6 markedly inhibited protein biosynthesis by esophageal-carcinoma Eca 109 cells in culture. At 0.1 .mu.g/mL, the inhibition was 68.3. Bleomycin A6 inhibited protein biosynthesis by hepatoma cells (ascites type), yet the inhibition was lower than that by Bleomycin A5 [11116-32-8].
IT **37293-17-7**
RL: BIOL (Biological study)
(neoplasm and protein formation by tumor cells inhibition by)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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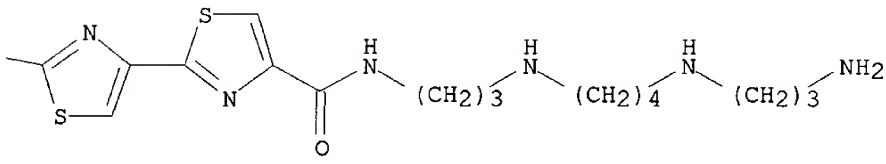


L4 ANSWER 42 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1985:534616 CAPLUS
DN 103:134616
TI Effects of bleomycin A6 on macromolecular synthesis in mouse ascites hepatoma cells
AU Liu, Fang; Hu, Jishen
CS Inst. Biophys., Acad. Sin., Beijing, Peop. Rep. China
SO Kangshengsu (1985), 10(1), 39-42
CODEN: KANGDS; ISSN: 0254-6116
DT Journal
LA Chinese
AB The effects of bleomycin A6 **[37293-17-7]** on macromol.

biosynthesis in mouse ascites hepatoma cells were studied. Bleomycin A6 inhibited DNA, RNA, and protein biosynthesis. DNA synthesis was more profoundly affected than RNA and protein synthesis and the inhibition ratio was more marked with the high bleomycin A6 concns. However, the effect of bleomycin A6 on macromol. synthesis showed a difference between the hepatoma and marrow cells. At high concns. of bleomycin A6 (250-500 .mu.g/mL), the incorporation of [3H]thymidine into DNA, [3H]uridine into RNA, and [3H]leucine into protein was not significantly affected in marrow cells. The selective inhibition of tumor cells by bleomycin A6 should make this agent very valuable in clin. practice.

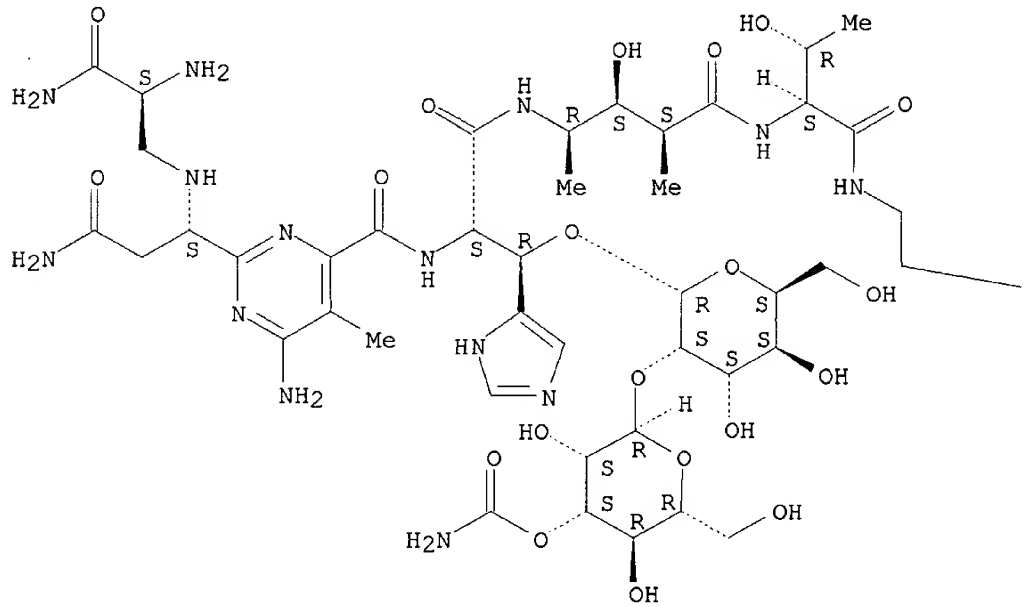
IT **37293-17-7**
RL: BIOL (Biological study)
(macromol. formation by neoplasm response to, effects on bone marrow comparison with)

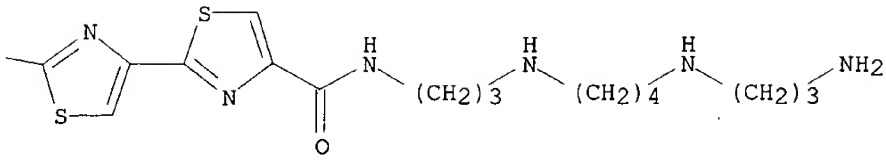
RN 37293-17-7 CAPLUS

CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

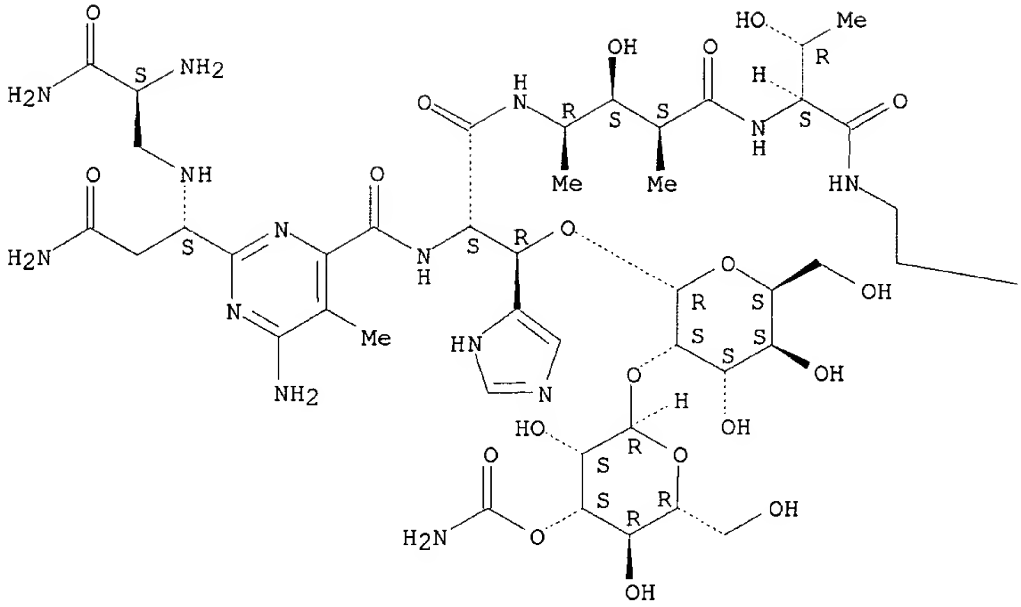




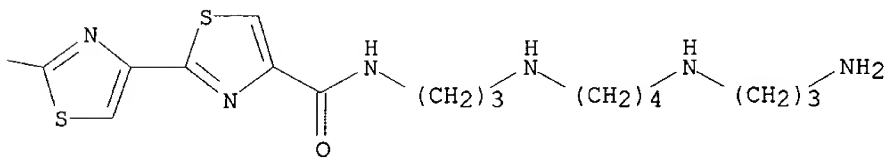
L4 ANSWER 43 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1984:622186 CAPLUS
DN 101:222186
TI Flow cytometric study of the effect of Zhengguangmycin on the cell cycle of a normal cell line and on tumors
AU Xue, Shaobai; Li, Diandong; Li, Suwen; Yu, Bin; Xu, Pu; Hu, Yunying; Cheng, Ruxuan; Xiao, Junjun
CS Dep. Biol., Beijing Norm. Univ., Beijing, Peop. Rep. China
SO Yaoxue Xuebao (1984), 19(7), 491-4
CODEN: YHHPAL; ISSN: 0513-4870
DT Journal
LA Chinese
AB Zhengguangmycins (bleomycins) blocked CHO cells in the G2 phase. Zhengguangmycin A4 [93197-07-0] and A5 [11116-32-8] were the most active; A6 [**37293-17-7**], A2 [11116-31-7], and B2 [9060-10-0] were less active; A5033 [58071-33-3] was the least active. Comparison of G2-blocking activity with antitumor activity suggested that G2 blockade may play a role in the antitumor action of Zhengguangmycins.
IT **37293-17-7**
RL: BIOL (Biological study)
(cell cycle G2-phase response to, antitumor activity in relation to)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L4 ANSWER 44 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1984:1677 CAPLUS
DN 100:1677
TI Fibrogenic structure-activity study of the bleomycin molecule
AU Newman, Robert A.; Hacker, Miles P.; Sakai, Ted T.
CS Coll. Med., Univ. Vermont, Burlington, VT, 05405, USA
SO Toxicol. Appl. Pharmacol. (1983), 70(3), 373-81
CODEN: TXAPA9; ISSN: 0041-008X
DT Journal
LA English
AB The fibrogenic potential of intact bleomycins as well as their

acetyldipeptide and terminal polyamine constituents were assessed. Administration of Blenoxane [9041-93-4], bleomycin A2 [11116-31-7], or bleomycin B2 [9060-10-0] to rats produced histopathol. evidence of pulmonary fibrosis when tissues were examd. 28 days following a single intratracheal dose. These compds. also produced a readily detectable increase in pulmonary collagen synthesis as evidenced by an .apprx.2-fold increase over control values in the formation of [3H]hydroxyproline in an in vitro lung mince system. Lung collagen synthetic activity remained significantly elevated over control values for up to 2 wk. However, neither the acetyldipeptides nor the polyamine constituents of bleomycin A2 and B2 produced detectable increases in lung collagen synthesis or in histopathol. evidence of pulmonary injury. Spermine [71-44-3] and spermidine [124-20-9], the terminal amine components assocd. with bleomycin A6 [**37293-17-7**] and with tallysomycin A [65057-90-1], tallysomycin B [65057-91-2], and bleomycin A5 [11116-32-8], resp., did produce significant pulmonary fibrotic injury in rats following intratracheal administration. Out of an extensive series of polyamines, bleomycin acetyldipeptides and intact bleomycin and tallysomycin analogs, only spermine and spermidine produced H2O2 and acrolein upon incubation in vitro with amine oxidase, a common pulmonary enzyme. Conclusions regarding the relative toxicity of different bleomycin analogs based solely on the toxicity produced by the administration of their terminal amine constituent must therefore be made with caution.

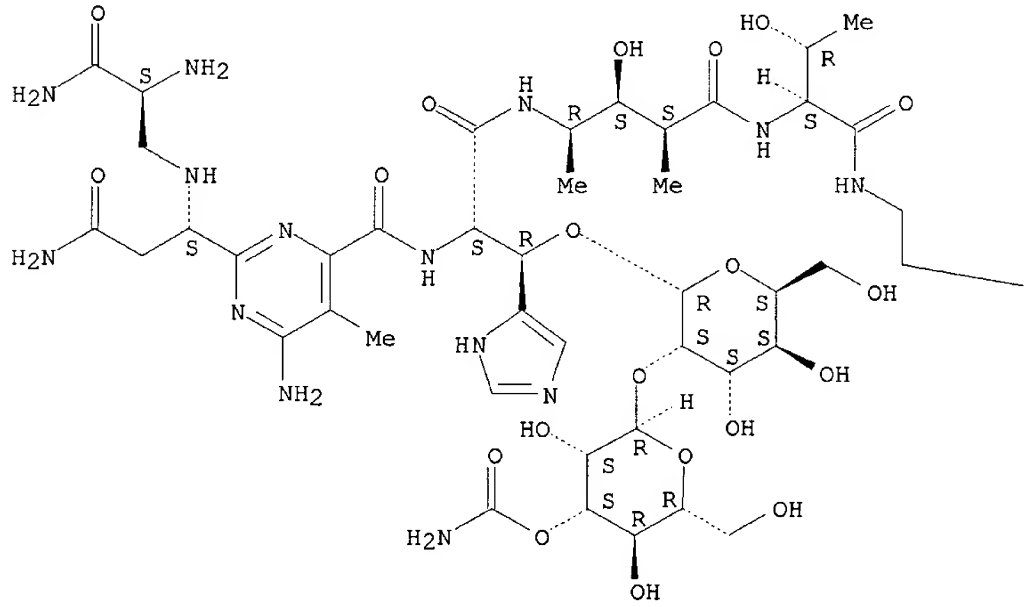
IT **37293-17-7**
RL: BIOL (Biological study)
(fibrosis from, in lung, structure in relation to)

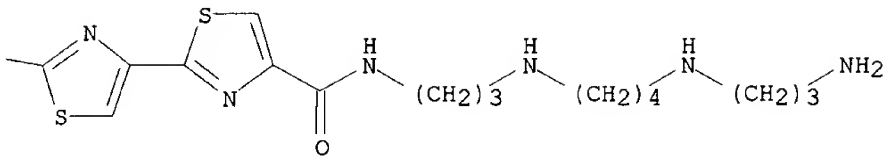
RN 37293-17-7 CAPLUS

CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

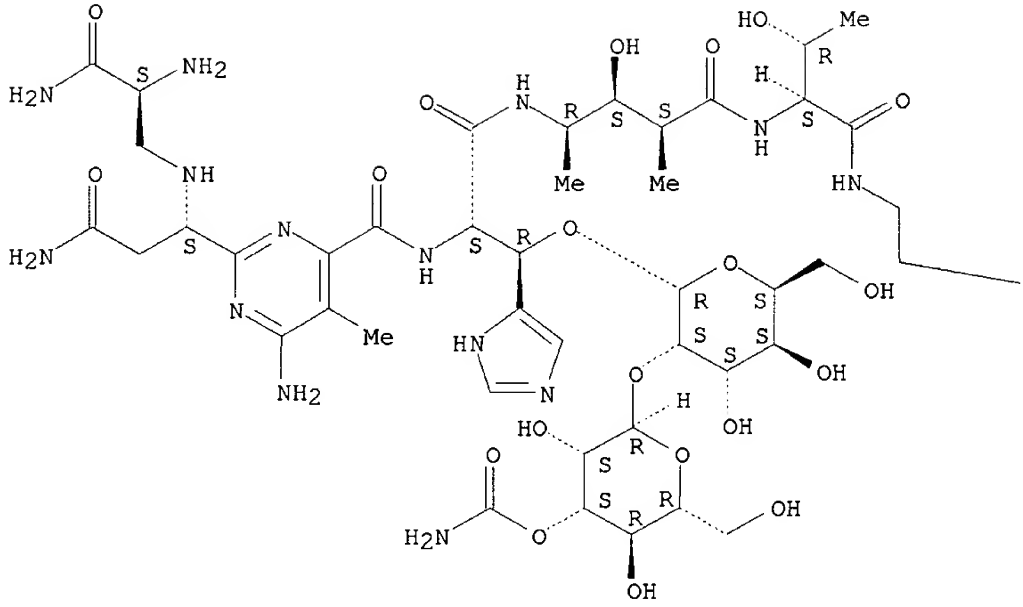




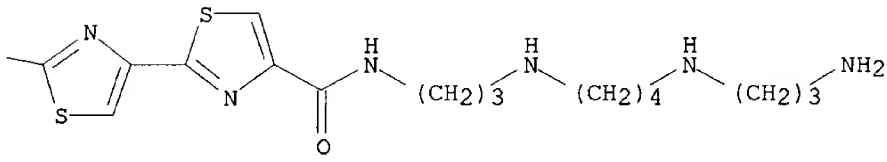
L4 ANSWER 45 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1981:597010 CAPLUS
DN 95:197010
TI Preliminary observation on using CaEs-17 cell line for in vitro screening of antitumor drugs
AU Yung, Kuo-Huang; Ku, Yu-Chih; Wang, Sung-Hsai; Chu, Yung-Mei
CS Tumor Res. Unit, Peking Med. Coll., Peking, Peop. Rep. China
SO Chung-hua Chung Liu Tsa Chih (1981), 3(1), 77
CODEN: CCLCDY
DT Journal
LA Chinese
AB Zhengguangmycins A2, A5, A6, and A2B2 at dosages of 0.1-0.2 .mu.g/mL suppressed the growth of CaEs-17 cells (a strain human esophageal cancer cells) by 50-75.5% in vitro. Other drugs, including Na cantharate [79389-18-7] (0.1 .mu.g/mL), demethylcantharidin [11043-72-4] (5 .mu.g/mL), oridonin [28957-04-2] (2.0 .mu.g/mL), phytohemagglutinin (10 .mu.g/mL), and other medicinal herb exts. also inhibited the growth of CaEs-17 cells by 35-52%. Thus, CaEs-17 cells may be useful in the in vitro screening of antitumor drugs.
IT **37293-17-7**
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(neoplasm inhibition by)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L4 ANSWER 46 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1981:167479 CAPLUS
DN 94:167479
TI Role of terminal substituents in the pulmonary toxicity of bleomycins
AU Raisfeld, Ilene H.
CS Health Sci. Cent., State Univ. New York, Stony Brook, NY, 11794, USA
SO Toxicol. Appl. Pharmacol. (1981), 57(3), 355-66
CODEN: TXAPA9; ISSN: 0041-008X
DT Journal
LA English
AB When administered to mice by the intratracheal route, 6 bleomycins I [X = NH(CH2)4NH2, NH(CH2)3NH2, NH(CH2)4NHC(:NH)NH2, etc.] produce pulmonary

toxicity of varying severity. The terminal substituent of I apparently plays an important role in I-induced toxicity. Structure-activity relations are discussed.

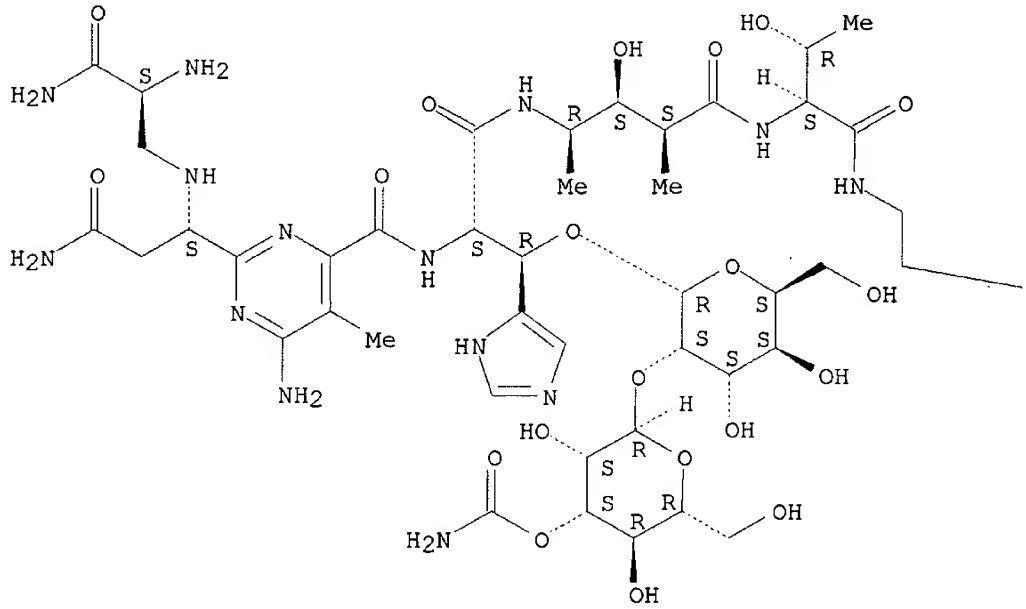
IT **37293-17-7**
RL: PRP (Properties)
(toxicity of, to lung, structure in relation to)

RN 37293-17-7 CAPLUS

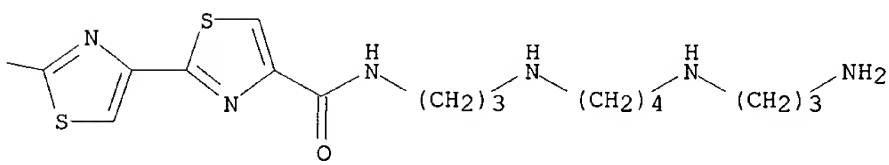
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



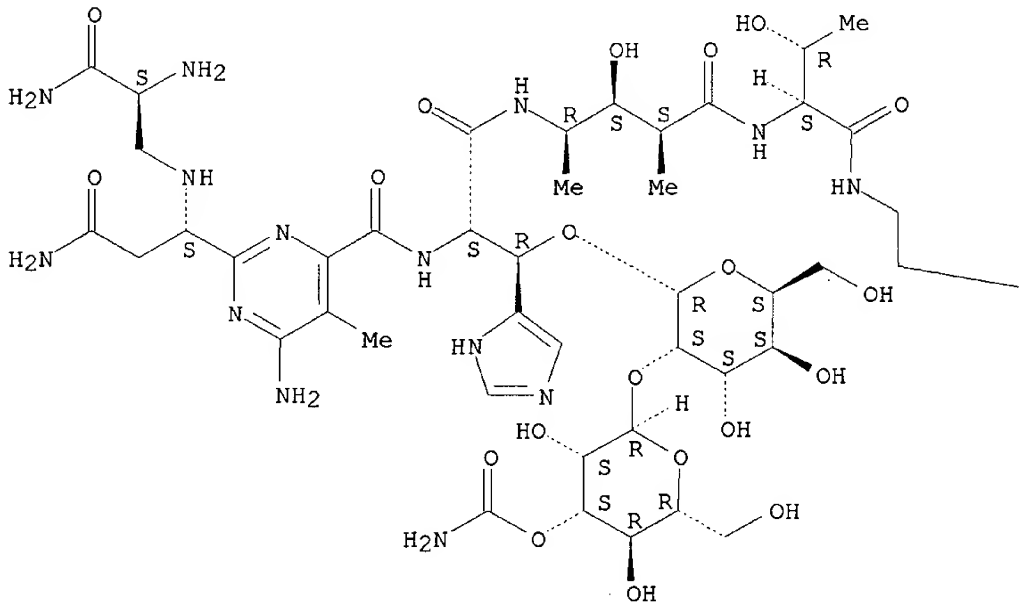
PAGE 1-B

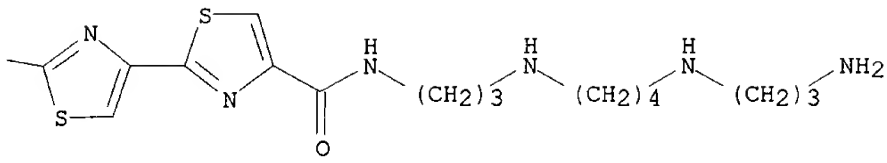


L4 ANSWER 47 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1980:203628 CAPLUS
DN 92:203628
TI A practical method for the separation of bleomycin components
AU Fujii, Akio
CS Pharm. Div., Nippon Kayaku Co., Tokyo, Japan
SO Bleomycin: Chem., Biochem., Biol. Aspects, Proc. Jt. U. S.-Jpn. Symp. (1979), Meeting Date 1978, 341-2. Editor(s): Hecht, Sidney M. Publisher: Springer, Secaucus, N. J.
CODEN: 42OCA8
DT Conference
LA English
AB Bleomycins were sepd. chromatog. on CM-Sephadex C-125 with aq. HCO2NH4 (0.05-1M) as the mobile phase. The main fractions were desalted with activated charcoal and eluted with acidic aq. acetone giving 3.07 g bleomycin A2-Cu complex. Other mobile phases and desalting procedures are discussed.
IT **37293-17-7**
RL: ANT (Analyte); ANST (Analytical study)
(chromatog. of)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

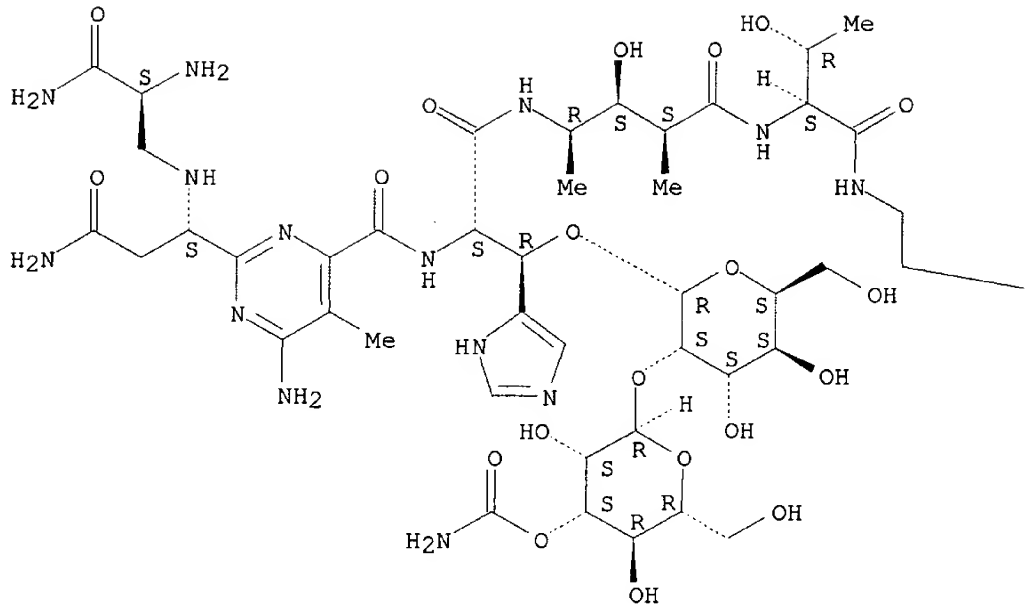




L4 ANSWER 48 OF 48 CAPLUS COPYRIGHT 2002 ACS
AN 1972:400155 CAPLUS
DN 77:155
TI Natural and artificial bleomycins. Chemistry and antitumor activities
AU Umezawa, Hamao
CS Inst. Microb. Chem., Tokyo, Japan
SO Pure Appl. Chem. (1971), 28(4), 665-80
CODEN: PACHAS
DT Journal
LA English
AB Addn. of an amine to the fermentation medium during bleomycin production induced the formation of a bleomycin contg. that amine and suppressed formation of all other bleomycins. Thus, addn. of 360 .mu.g spermidine [124-20-9]/ml medium contg. Streptomyces verticillus produced only bleomycin A5 (I) [11116-32-8]. Since only I was formed after the addn. of spermine [71-44-3], spermine must be converted to spermidine before incorporation. Of the 42 bleomycins synthesized, those contg. diamines were less effective against Ehrlich ascites carcinoma than those contg. triamines. In squamous cell carcinoma 60% of the bleomycin A2 [11116-31-7] remained active 1 hr after administration because of the high concn. of the antibiotic in the tumor; however, no activity was found in sarcoma. Bleomycins were more rapidly inactivated in liver, kidney and spleen than in lung and skin by an enzyme not yet identified. Enzymically inactivated bleomycin B2 was devoid of antibacterial activity, except for Mycobacterium 607 and Salmonella enteritidis.
IT **37293-17-7**
RL: BIOL (Biological study)
(amine from)
RN 37293-17-7 CAPLUS
CN Bleomycinamide, N1-[3-[[4-[(3-aminopropyl)amino]butyl]amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



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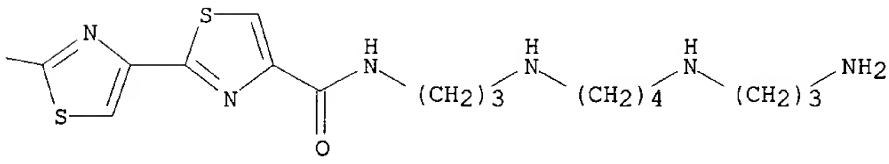

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